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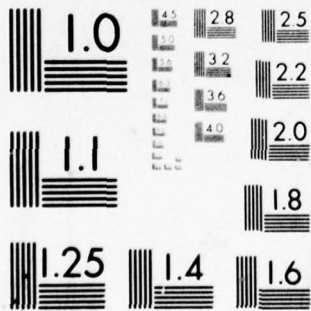
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NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

WOMEN (AND MEN) IN THE U. S. ARMY:
A STUDY IN OPTIMAL UTILIZATION

BY

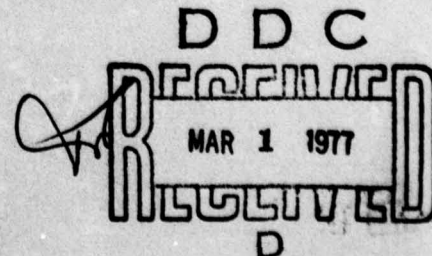
Michael John Castle

December 1976

Thesis Advisor:

D. Courtney

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Women (and Men) in the U. S. Army: A Study in Optimal Utilization.		5. TYPE OF REPORT & PERIOD COVERED Master's Thesis December 1976
7. AUTHOR(s) Michael John/Castle		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Naval Postgraduate School Monterey, California 93940		12. REPORT DATE December 1976
		13. NUMBER OF PAGES 148
		15. SECURITY CLASS. (of this report)
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) <div style="display: flex; justify-content: space-between;"> <div> Women's Roles Women's Employment Women's Army Corps WAC Enlistment </div> <div> Women Officer Training Women's Basic Training Combat Definition Employment Conditions </div> <div style="text-align: right;"> (continued on next page) </div> </div>		
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Women Utilization
Selection
Re-enlistment
Women Psychology

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Women (and Men) in the U. S. Army:

A Study in Optimal Utilization

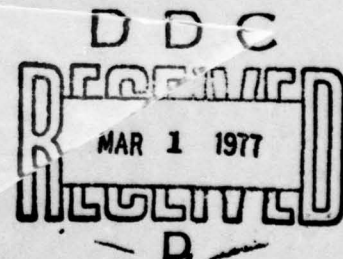
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Submitted in partial fulfillment of the
 requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the
 NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

Optimal utilization of all available resources is the ultimate goal of any nation's armed forces. This study examines the impact that the All Volunteer Force, the declining supply of 18 year-old males and legal and political pressures have had on the need for women in the U. S. Army. One major restriction to optimum utilization is the definition of combat. Numerical models employed to determine force structure consistent with the present restrictions and a current study to determine optimum unit female/male mix are discussed. The attitudes at all levels of command are the overwhelming influences on optimal utilization and these are examined along with the physiological and psychological nature of women and the effects of stereotyping. Discussions of current policies on career development, training, assignment and re-enlistment of personnel and conditions of employment are included. To provide a contrasting approach the study contains a brief discussion on the utilization of women in the armed forces of other nations. In conclusion four major areas (the need, the question of combat, specific management problems and the problem of attitudes) requiring command consideration and decision are identified.

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I. INTRODUCTION

The U. S. Defense Manpower Commission, in its 1976 report states: "Optimum utilization of women in a way that will not adversely affect mission capability is the objective, rather than maximum assignment of women to all areas". The phrase "optimum utilization" seems to be the key to an expanded role for women in the military. Webster's dictionary provides a basis for defining this phrase as "being put to profitable use to the most favourable degree". It is in the armed forces' interests (and hence the nation's) to make full use of a country's total available workforce. But one of the major concerns expressed by the Defense Manpower Commission was the impact women in the military would have on the ability of the armed forces to carry out their mission. It becomes the military manager's responsibility to ensure that the armed forces can make full use of all available resources to accomplish their mission.

In examining the utilization of women in the Army it is necessary to understand the role women have played in the military in the past. Women in the U. S. Army have, until recently been denied equal rights, and only now is their full potential slowly being realized. The military as part of society, undergoes social and cultural change. It is during the last decade that internal and external pressures to bring women into the military have had their greatest impact.

Kate Arbogast [1973] expressed her feeling that the military faced the problem of obtaining the most qualified personnel at the least cost. Women could be the answer in that: 1) they enter the military on a higher qualitative base than do men; and 2) the excess supply of volunteers indicates that women want to serve in the military. Arbogast adds, however, that a realist might surmise that there is no alternative.

To achieve optimum utilization of women in the Army, the realization of the availability of this new resource must be transferred into manpower planning policies. "Manpower" will be used in this document in a collective sense to include all personnel resources of a nation or army (i.e., male and female). Military planning should include an exact identification of the organizational need for skills and take a non-sexist approach in the search for these skills. Only then should the Army seek an optimal combination of men and women to supply those required skills, thus enabling planners to determine the size and structure of the manpower need. It must be recognized that society's attitudes will have an impact on any policies developed. In addition military manpower planning must include recognition of the differences between men and women.

It is not sufficient just to advocate the introduction of women and then expect the spirit of policies to be followed without detailed instructions and guidance. Definite policies, regulations and instructions should be issued at all levels of management to provide for the assimilation and optimum utilization of the women in all phases of their careers. This

includes such areas as enlistment standards, training requirements, assignment policies, re-enlistment provisions and general conditions of service. Some of these aspects may require detailed research projects to determine the optimum approach. However, maximum involvement of all levels of management will ensure more reasoned policies.

If the military is to benefit from its new policies on women, it would do well to look at the utilization of women in the armed forces of other nations. The conclusion may be that each country has a unique set of social values and hence what is applicable to one nation's forces may not be easily transferred to another country. But at least the same errors may be avoided if other nation's experiences are reviewed. Using these broad headings it is hoped that an examination of policy will identify the courses of action most likely to produce the optimum utilization of women in the Army.

A. PURPOSE AND METHODOLOGY

Normally an experimental thesis will follow a predetermined formal sequence of hypothesis formulation, recognition of dependent and independent variables, testing the hypothesis and ending with a statement of the findings. However this thesis is not of an experimental type but rather designed to assist military managers in their understanding of the utilization of women in the Army today. In particular it is hoped this document will be of use not only to members of the U. S. Army but also to other services by providing them with an insight into the reasoning behind integration policies.

The bibliography of this thesis has been expanded to include as many references as possible pertaining to the subject of women in the military in order to facilitate further research into a particular aspect of their utilization. It should be noted that the 1970's have proved, thus far, to be an era of rapid change in the area of utilization of women and hence portions of this thesis may become obsolete within a short period of time.

Why then, in this period when changes made in the utilization of one armed service invariably have ramifications for all armed services, does a thesis of this nature concentrate on the U. S. Army rather than all Armed Services. First, since the author's parent service is the Australian Army, it was considered more appropriate to concentrate on the service having a role structure closest to that of the Australian Army. Second, both the U. S. Navy (USN) and the U. S. Air Force (USAF) have legal restrictions on the use of women, making some of their problems unique to their own services. Lastly, it could be said that the U. S. Marine Corps (USMC) is most closely related in size to the Australian Army, yet they have been excluded from this thesis for the following reasons. The USMC mission is entirely combat oriented and the ships on which the members serve prohibit women. Women's opportunities are further restricted as the USMC has the smallest support ratio because they depend heavily on Navy facilities. Where significant events, policies or actions involving the other U. S. armed services have had impacts on the utilization of women in the U. S. Army these have been mentioned.

This thesis is primarily based on a literature review and structured interviews. Histories of women's participation in various conflicts, government publications, technical reports, research papers, Department of the Army official documents, magazine articles, and various unpublished papers have been reviewed. Structured interviews and informal discussions were held with members of the Office of the Deputy Chief of Staff for Personnel (DCSPER), Military Personnel Center (MILPERCEN), Office of the Surgeon General, Office of the Director WAC, Army Research Institute for the Behavioral and Social Sciences (ARI), United States Military Academy (USMA) West Point, U. S. Women's Army Corps Center and School (USWACCS) at Fort McClellan, and 5th Basic Training (BT) Brigade at Fort Jackson.

B. HISTORY AND BACKGROUND

The historical impact of women in the U. S. Army is linked with society's attitudes to the utilization of women. Since there are many detailed accounts of the history of the Women's Army Corps (see Treadwell, 1954), it is intended in this document to briefly outline only those events which have a significant impact on current policies.

Prior to formal integration of women into the military forces their involvement in combat situations was very much the exception. Some women engaged in combat by disguising their sex (e.g., Deborah Sampson in the Continental Army). Still others became embroiled in a battle through attending wounded males - tradition tells us that "Molly Pitcher"

carried water to the men on the revolutionary battlefield of Monmouth and replaced her husband, Captain John Hays when he collapsed at his cannon. It was not until the Army Nurse Corps was formed in 1901 that women became an organized part of the Army. But even the Army Nurse Corps was not an integral part of the Army, rather an auxiliary whose members were denied many of the regular service benefits. They did not receive Army rank, officer status or equal pay. Some women were actually used by the Army in World War I in jobs other than nursing, but not as an official part of the Military Force. The War Department could not see "the desirability or feasibility of making this most radical departure in the conduct of our military affairs." [Treadwell, 1954]. When the war ended the question of women in the Army was dropped.

It took another war crisis before the need for women in the armed forces was formally recognized. On 28 May 1941 a bill to establish the Women's Army Auxiliary Corps (WAAC) was introduced into the House of Representatives by Congresswoman Edith Nourse Rogers. There was considerable opposition to the bill, but it was finally approved by Congress on 14 May 1942. It is interesting to note first that the status of women was still in an auxiliary role, and second that much of the opposition to their use was based on the same fears as are being expressed today. Such arguments as reduction in a force's efficiency, concern for women's safety, perceived inability of women to cope in combat situations, were all disproved by their actual performance in World War II, yet these are still being brought forward.

The initial strength of the WAAC was limited by Executive Order to 25,000 [U. S. Army, Special Text, 1975]. But the Auxiliary status of the WAAC still posed a number of problems, for example with command channels and the Military Justice System. It was illegal to punish a woman under military regulations since she was not officially a member of the military forces. On 28 June 1943 a bill was passed by Congress establishing the Women's Army Corps (WAC) as a component of the Army of the United States. This took away any legal restrictions on the use of women in the Army, however, since their performance in a combat area was unknown the Army moved cautiously. On 20 December 1943 the first WAC detachment arrived at Cairo, Egypt for duty with Headquarters, U. S. Army Forces in the Middle East. And on 12 May 1944 the first contingent of Wacs (the generally accepted term for members of the WAC) assigned to the Southwest Pacific Area landed at Sydney, Australia [U. S. Army, Special Text, 1975]. The reports of commanders were favourable to the use of women in the Army. "Wacs proved much less of a problem than had been envisaged ... It was found that Wacs could live under conditions substantially the same as those of male personnel." [Treadwell, 1954].

At the end of the war in Europe, Headquarters European Theater of Operations established a board to "prepare a factual and annotated report on the Women's Army Corps in the European Theater of Operations and recommendations." [U. S. Army, Women in the Army Study Group, 1976]. The recommendations made by this board are significant for two reasons: 1. They were far-reaching and well ahead of their time, since some of the recommendations have not been implemented today. 2. These

recommendations were based on the most extensive use of U. S. Army women during hostilities. It is considered essential to list the recommendations of this board to illustrate the similarity between Army thinking then and now. The recommendations were:

1. ... provide for the inclusion of women as an integral part of the various branches, arms, and services of the peacetime Regular Army and Reserve Corps in job categories for which they are qualified ...
2. The elimination of the use of the title "Women's Army Corps" and the absorption of the units and individuals in the branches, arms, and services of the overall military establishment.
3. Establishment of an office or staff sections for women's affairs on all staff levels of the military establishment.
4. Assignment of female staff and administrative officer specialists to those sections, agencies, and commands which are primarily responsible for the planning and policymaking relating to the administration and utilization of all military personnel.
5. The procurement of personnel on a voluntary basis during time of peace, and under provisions of a selective service system during an emergency, in job categories and strengths consistent with the authorized overall strength and needs of the military establishment, to assure the maintenance of a balanced force.
6. Equalization of authorized grades and promotion requirements for male and female officers.
7. Extensive joint training in staff, administrative, operational and command functions for male and female officers by arm, branch or force in which they are commissioned.
8. Inclusion of women in any program adopted for basic training of officer candidates.

9. Establish a Reserve Officers Training Corps program for women.

10. Removal of all restrictions on utilization of female military personnel in time of an emergency other than:

- a. Individual qualification for job performance.
- b. Individual physical strength and endurance.
- c. Priority of need.
- d. Reasonable safety.

11. That the level of utilization of women in the military establishment during a period of emergency be determined only by their job qualifications and the scope and location of warfare, and not by combat organizational levels, such as regiment, division or corps.

12. Emphasis on the continued use of female personnel in administrative, clerical, and technical skills; and the expansion of their use in the fields of mechanical and medical skills, special types of combat, and special service units.

13. Revision of the International Rules of Land Warfare to provide adequate rules governing the accommodation, feeding, and employment of both officer and enlisted female personnel.

14. Mobilization under the selective service system in a time of emergency of all female American personnel required for duty in the military establishment.

[U. S. Army, Women in the Army Study Group, 1976]

The Study Group states that about 70% of Wacs in the Southwest Pacific Area during World War II were employed in the traditional administrative areas, with the remainder scattered amongst motor transportation, communications and intelligence. With the termination of hostilities in 1945, it was thought women were no longer needed, so in August 1945 enlistments in the WAC ceased. But in February 1946 the War Department announced plans to utilize Wacs to meet the critical

shortage of skilled personnel and to prepare legislation to make the WAC a permanent part of the Army.

After President Truman signed into law the Women's Armed Services Integration Act in June 1948, the way was clear for women to be enlisted into the Regular Army. A WAC training center was established first at Camp Lee, Virginia, but with a permanent center later opened at Fort McClellan, Alabama in 1954.

In 1950 the strength of the WAC was increased due to the need for volunteers for the Korean War, but no actual record could be found indicating that Wacs (as distinct from Nurses) were actually employed in Korea. The next crisis which called for greater utilization of women was the Vietnam conflict. The first WAC officers were assigned to Vietnam as early as 1962 and others were employed at HQ, U. S. Army Vietnam in Saigon in 1965. A WAC detachment was established in Long Binh in 1966. Only WAC volunteers were sent to the locations in Vietnam and their employment was solely in traditional clerical and administrative roles.

The preceding outline emphasises that acceptance of women in the military in the past has always been as a last resort in times of crisis. It was not until society recognized the need women fulfilled in the permanent workforce that utilization of women in the military expanded drastically. The year 1975 was declared International Women's Year by the United Nations. The U. S. Secretary of Defense, James R. Schlesinger stated three objectives for the Defense Department's observance of International Women's Year:

1. To continue striving to provide men and women alike with an equal opportunity for patriotic service in the all-volunteer military forces of the United States, and in the civilian roles of the Department of Defense.

2. To encourage recognition of the concept that the common defense is a common and equal responsibility of all citizens, and through innovative and aggressive initiatives, encourage the active role of women in the mission of the Department of Defense.

3. To acknowledge and emphasize the sacrifices of women in building the American Nation and, in particular, recognize the accomplishments of women in the Department of Defense, both military and civilian.

[Commanders Digest 18(2), 1975]

The views expressed above by Schlesinger and more recently by the Defense Manpower Commission [1976] are a definite departure from the traditional viewpoint of women in the military as a "resource of last resort." Thus the enlightened military manager should not limit his policies by linking the roles of women with the past.

II. MANPOWER PLANNING

The Secretary of Defense in his "Annual Defense Department Report FY 1976 and FY 1977 Transition Quarter" stated three significant challenges highlighting the needs of the military:

The first of these challenges has been assuring that we meet our force requirements with volunteers...

A second challenge is improving the use we make of our human resources so as to achieve a greater defense capability with existing manpower...

Finally we are doing our best to improve living conditions of our Service personnel.

[Defense Manpower Commission, 1976]

A. THE ORGANIZATIONAL NEED - MYTH OR REALITY?

Why should women be allowed to enter the Army? Is there a definite need by the organization or is it just a case of satisfying the various demands of women's organizations? The large increase in numbers of women in the military coincided with the advent of the All Volunteer Force (AVF) and the subsequent need to maintain a force of high quality and adequate size. During the 1970's there were also societal and cultural changes impacting on the roles of women in the labour market and in the home. Hence women became an untapped resource available to the armed forces. Their new role resulted in an expansion of the available enlistment pool to ensure a supply of quality personnel.

1. Impact of the All Volunteer Force

In July, 1973 after some 33 years of almost uninterrupted dependence on a draft system, the U. S. committed itself to a military force consisting entirely of volunteers. Such a move from conscription to complete dependence on volunteers is so historic that it has inherent uncertainties. Perhaps the biggest fear was that the quality of the military would have to be lowered to ensure size requirements could be met. But the Deputy Secretary of Defense, William P. Clements, Jr., was quick to allay fears of reduced quality:

I want to assure you that in this All-Volunteer program we are definitely emphasizing quality. We will preserve some management flexibility in our quality standards carefully and as appropriate from time to time. In every instance a quality force will be our overriding guideline.

[Commanders Digest 14(9), 1973]

On the other hand he also stressed that there would be no return to the draft. Hence it would appear at that stage (August, 1973) the Department of Defense was confident it could maintain an All Volunteer Force of sufficient size and quality for the needs of the nation. But an examination of the projected size requirements and the available pool reveals that maintenance of these two conflicting goals would require a greater utilization of women than at first envisaged.

In August, 1972 the Secretary of the Army announced a decision to double the strength of the WAC by 1978. This meant an expansion from approximately 12,500 to 24,000 women in the Army, spread over six years. This expansion plan was

shortlived because in October, 1973 the Chief of Staff approved a plan to expand the WAC to 50,400 by FY 1979 [U. S. Army, Special Text, 1975]. Table I illustrates the different percentages of women employed in each of the services. Currently (30 Sep 76) out of a total Army of 782,668 there are 49,611 women (being approximately 6.3%) [Department of the Army, Manpower Programs Division, 1976]. With a projected size of 790,000, (including 50,400 women) the Army's goal is to achieve 6.2% by FY 1978. It would appear the goal has already been achieved.

TABLE I
PERCENTAGE OF WOMEN IN THE SERVICES

	<u>Percent of Total Active Force</u>	
	<u>30 Jun 71</u>	<u>30 Jun 75</u>
Army	1.7%	5.4%
Navy	1.6%	4.0%
Marine Corps	1.2%	1.6%
Air Force	2.3%	4.9%
Total DOD	1.6%	4.6%

Source: Defense Manpower Commission Staff Studies and Supporting Papers, Volume III, Military Recruitment and Accessions and the Future of the All Volunteer Force, U. S. Government Printing Office, Washington, D.C., May 1976, P. E-22.

Table II provides details of military end-strengths (both total and women) for the period 1945 - 1978. In 1948 Congress had imposed a two percent (2%) ceiling on the proportion of women in each service. As can be seen from Table II the actual limit was never approached even during the early 1950's peak

TABLE II
FY 1945-1978
DOD Military End Strengths
Total and Women

Fiscal Year	Total Military Year-end Strengths	Total of Women	Percent Women of Total
1945	12,124,418	266,256	2.2
1948	1,445,910	14,458	1.0
1949	1,615,360	18,081	1.1
1950	1,460,261	22,069	1.5
1951	3,249,455	39,625	1.2
1952	3,635,912	45,934	1.3
1953	3,555,067	45,485	1.3
1954	3,302,104	38,600	1.2
1955	2,935,107	35,191	1.2
1956	2,806,441	33,646	1.2
1957	2,795,798	32,173	1.2
1958	2,600,581	31,176	1.2
1959	2,504,310	31,718	1.3
1960	2,476,435	31,550	1.3
1961	2,483,771	32,071	1.3
1962	2,807,819	32,213	1.1
1963	2,699,677	30,771	1.1
1964	2,687,409	29,795	1.1
1965	2,655,389	30,610	1.2
1966	3,094,058	32,589	1.1

TABLE II (Continued)

Fiscal Year	Total Military Year-end Strengths	Total of Women	Percent Women of Total
1967	3,376,880	35,173	1.0
1968	3,547,902	38,397	1.1
1969	3,460,162	39,506	1.1
1970	3,066,294	41,479	1.4
1971	2,714,727	42,775	1.6
1972	2,323,079	45,033	1.9
1973	2,252,000	55,100	2.4
1974	2,161,162	74,459	3.4
1975 (est.)	2,129,027	93,500	4.4
1976 (est.)	2,099,954	109,200	5.2
1977 (est.)	2,099,954	119,900	5.7
1978 (est.)	2,099,954	130,700	6.2

Sources: Defense Manpower Commission Staff Studies and Supporting Papers, Volume IV, Developing and Utilizing the Total Force and Shaping the Future Military Career Force, U. S. Government Printing Office, Washington, D.C., May 1976, P. L-3.

Department of Defense Appropriations for Fiscal Year 1977, Senate Hearings Before the Committee on Appropriations, U. S. Government Printing Office, Washington, D.C., 1976, Table 3, P. 7.

of the Korean War. The upper limit was removed in 1967 (Public Law 90-130) and the projected percentage for 1978 is 6.2%.

But why should the mere fact of converting to an All Volunteer Force suddenly increase the need for more women in the military? It is the combination of desired force levels and quality from a reducing supply pool. The prime supply pool for enlistments is considered to be non-prior service (NPS) 18-year-olds. "The Bureau of the Census projects that the population of 18-year-old males in the United States will decline by 15.1 percent between July 1975 and July 1985. Similar declines will occur for 18-year-old females, as well as for males and females in the other age groups eligible for enlistment. This decline is an aftershock of the postwar 'baby boom'." [Defense Manpower Commission, 1976]. This decline is more significant for the males, since in FY 1974 54.2 percent of all available 18-year-old males applied for enlistment in contrast to only 4.1 percent of women in the available pool [Defense Manpower Commission, 1976]. The military is not insulated from changes occurring in society and the economy, and Department of Defense (DOD) projections are that the supply of males will depend largely on the prevailing rate of economic growth over the next decade. Under three growth scenarios (slow, moderate, rapid) the Defense Manpower Commission reports the following predictions for 18-year-old male accessions in 1985:

Slow growth - 26% surplus to requirement

Moderate growth - 4% surplus to requirement

Rapid growth - 20% shortfall of requirement

These projections are based on many management imposed restrictions which could be varied to affect both the supply of and demand for NPS accessions. One method of increasing the supply is to increase the selection percentage of female applicants. By equalizing educational and mental standards for men and women, the selection rate for females could approach that for males. "The substitution of women for male accessions, while not costless, would probably compare favourably with all other shortfall reduction actions excepting the revision of occupational selection standards." [Defense Manpower Commission Staff Studies and Supporting Papers, 1976]. Thus it could be said there is a definite need for more women in the military based on required force levels, selection standards and economic growth rate. The cumulative effects of various management alternative actions is summarized in Table III. The impact of each action is based on the "worst case" (rapid economic growth) scenario and the actions are sequenced from most to least cost effective. However the Defense Manpower Commission [1976] warn that increased numbers of female recruits will make up for any shortfall in male recruits only if an increasing proportion of males can be induced to accept combat assignments.

2. Political and Legal Restrictions

Legal restrictions on the use of women in the military can hinder full utilization of personnel resources, whilst

TABLE III
ESTIMATED CUMULATIVE IMPACT ON ALTERNATIVE ACTIONS

Action	Maximum effect	Cumulative impact on accessions shortfall	Percentage pay raise needed to close remaining gap
Revise existing selection standards for occupation	Accession requirements reduced by 3 percent	Reduced to 16,000 (down by 3,000)	+14.1
Equalize male and female selection rates	Increase female selection rate to 61.7 percent (female accessions up 2,000)	Reduced to 14,000 (down by 2,000)	+12.0
Lower physical standards	Increase selection rate from 61.7 to 65.5 percent (accessions up by 5,000)	Reduced to 9,000 (down by 5,000)	+7.3
Provide enlistment bonuses for selected jobs	Increase selection rate from 65.5 to 69.7 percent (accessions up by 6,000)	Reduced to 3,000 (down by 6,000)	+2.2
Raise military pay by 2.2 percent	Increase enlistments by 3 percent (accessions up by 3,000)	Reduced to 0 (down by 3,000)	0
Waive all mental and educational standards except Mental Category V exclusions	Increase selection rate from 69.7 to 76.1 percent (accessions up by 9,000)	Surplus of 9,000	-

Source: Defense Manpower Commission, Defense Manpower: The Keystone of National Security, Report to the President and the Congress, U. S. Government Printing Office, Washington, D. C., April 1976, Table IX-9.

providing biased managers with a legal excuse for discriminatory practices and policies. In 1969 the Secretary of Defense and the Chiefs of Staff of all the Services signed the Department's Human Goals statement. This document declared that the Defense Department would strive "to make military and civilian service in the Department of Defense a model of equal opportunity for all regardless of race, sex, creed or national origin ..." [Commanders Digest 15(8), 1974]. But there are some laws that prevent the full implementation of this policy.

Legal restrictions are imposed on the Navy and the Air Force by Sections 6015 and 8549 of Title 10 of the U. S. Code. The Navy appears particularly constrained since Section 6015 prohibits the use of women on their vessels, other than hospital ships and transports. Section 8549 means that women in the Air Force may not be assigned to aircraft engaged in combat missions. The legal restrictions are also complicated by the lack of a clear definition of "combat," which will be discussed in a later section. A surprising fact though, is that the Army does not have similar statutory restrictions placed on their utilization of women. However, to conform with the other services they have self-imposed restrictions on where women will be assigned. Women are not assigned to units whose mission is to seize and hold territory and to engage the enemy in direct contact.

To ensure readers have a complete understanding of organizational climate surrounding the utilization of women in the military it is worth noting other restrictions (legal or organizational) that were in effect but have now been

lifted. Public Law 90-130, passed on 8 November 1967 removed the 2% ceiling on women in each Service imposed in 1948. This Law also removed the restriction on women attaining a permanent rank above O-5 (Lieutenant Colonel). The 1972 *Frontiero vs Richardson* decision gave women the same family dependent benefits as men. This decision is discussed in detail in the section entitled Conditions of Employment. Finally in 1976 women were admitted to the military academies.

But perhaps the most controversial piece of legislation is the Equal Rights Amendment (ERA). The ERA states: "Equality of rights under the law shall not be denied or abridged by the United States or by any State on account of sex."

[The Constitution, 1976]. In laymen's terms this means that sex should not enter into any determination of an individual's legal rights. On 22 March 1972 the ERA, approved by both houses of Congress, was submitted to the state legislatures for ratification. If three quarters of the states (38) ratify the amendment within seven years (i.e., 1979), ERA will become the 27th Amendment to the Constitution. Currently, 34 states have ratified the ERA although some of those states have attempted to rescind their decisions. But there is no provision in the U. S. Constitution for a state to rescind its ratification and in the past Congress has refused to recognize such rescissions, counting those states as having ratified the amendment. Section 3 of the Amendment also states that it shall take effect two years after the date of ratification.

Just exactly what impact the ERA will have on women and conscription (if it were reintroduced), women in combat, and service benefits, is not yet clear to anyone. When the ERA was submitted to the states, Congress made these comments:

It seems likely ... that the ERA will require Congress to treat men and women equally with respect to the draft. This means that if there is a draft at all, both men and women who meet the physical and other requirements, and who are not exempt or deferred by law will be subject to conscription. Once in the Service, women like men would be assigned various duties by their commanders, depending on their qualifications and the Service's needs.

[Commanders Digest 18(2), 1975]

The Congress was quick to allay fears that passage of the ERA meant that mothers would be conscripted from their children. However, the passage of the ERA could require that women be permitted to volunteer for all sorts of military service, including combat duty. But many of the issues created by the ERA will have to be solved by the courts and it would be foolish to predict the outcomes of those test cases.

3. A New Resource

Apart from the need for women in the services generated by All Volunteer Force levels and new equal opportunity laws, there is the logical service goal to recruit the "best" people for the job. It is realized that many policies are based on fundamental assumptions about the roles and capacities of men and women. However, they may be stereotype perceptions of women's capabilities. These roles and capacities (real or perceived) will be discussed later under the heading of

Sociological Considerations. It is the purpose of this section to highlight the need to make use of an untapped quality personnel resource - women.

In a statement placed before a subcommittee of the Appropriations Committee in March 1976, the Army Deputy Chief of Staff for Personnel expressed concern about the recruitment of quality personnel:

Based on preliminary data through 2 February 1976, 61.8 percent of our non-prior service (NPS) enlistees have a high school diploma. This is less than our desired rate of 65.8 percent for this point in time, which is needed to meet our goal of 65 percent high school diploma graduates in FY 76. Based on current quality trends we anticipate difficulty in achieving this goal.

[Department of Defense Appropriations, 1976]

This concern for quality without reducing recruitment goals may be overcome by recruiting more women with the required level of education. In this last decade there has been a dramatic increase in the female labor force participation rate and hence women are a resource base that should not be overlooked. The extent of women's participation in the military is affected by the trend towards greater female participation in the civilian labor force because the military is a microcosm of society.

In 1975 women comprised about 40% of the Country's entire labor force compared with 31.2% in 1960 [U. S. Department of Labor, 1975]. This change in status of women can be further illustrated using the female labor force participation rate - this is the number of females in the labor force as a proportion of the total female population. The trend in the

female labor force participation rate is demonstrated by the following statistics:

1940 - 27.4%

1960 - 34.8%

1970 - 42.6%

1975 - 45.9%

[U. S. Department of Commerce, 1975]

The most phenomenal increase in labor force participation has occurred among married women in the age group 20-24. Their participation rate has risen from 37% in 1964 to 54% in 1974. Nearly 70% of women in this group were found to be white collar workers [Grossman, 1975]. Another striking statistic is that the number of teenage women (ages 16-19) in the labor force has increased at two and a half times the rate of increase in teenage population. Although there has been a steady gain in the female labor force participation rate it is not very well known that by 1974 women constituted a larger portion of workers in every major occupational group than they had in the 1960's (except as farm laborers). The largest gains were in traditional female occupations. The percentage of women in clerical occupations increased from 69% in 1962 to 77% in 1974; in service occupations increases were from 53% to 58%; in sales worker occupations from 39% to 42%; and in operative occupations from 26% to 31%. In the professional area women's participation increased from 34% to 39% whilst in the managerial area there was an increase from 15% to only 18% (much less than their share of total employment) [Garfinkle, 1975]. It can be seen from these statistics that women have

made most of their gains in the traditional female employments with only relatively small gains in representation in the non-traditional employments.

Kate Arbogast [1973] made the point that it was cheaper to recruit females than males. The Central All-Volunteer Task Force concluded in 1972, based on an Air Force cost model, that long term savings for enlisted women annually averaged almost \$400 per person [Defense Manpower Commission Staff Studies, 1976]. They found that costs associated with higher attrition rates for women were offset by savings in medical, housing and other related costs. (Since 1972 female attrition rates have been decreasing toward the male rates.) All services experience a queue of qualified female applicants, yet the Army Deputy Chief of Staff for Personnel noted that the services have to actively seek qualified male applicants. The history of the WAC has been consistently one of acceptance only as a resource of last resort. But now realization of the potential of this new resource will lead to a more efficient utilization of the nation's personnel resources. A comment by Brig. Gen. (Ret) Mildred C. Bailey (an ex-Director of WAC) summarizes the attitude to the new resource:

The conceptual approach is to optimize the use of women in the Army with due regard for Army mission, equal rights of women and the practical considerations in utilization to include military and cost effectiveness - to do what is best for the Army and best for women.

[Bailey, 1974]

4. Areas of Potential Usefulness of Women

Dolores Battle [Defense Manpower Commission Staff Studies, 1976] observes that in their recommendations in 1972, the All Volunteer Task Force declined to suggest an optimum level for women in the services other than the number which could be used effectively. There is no questioning the fact that women can be used effectively in traditional employments, but what potential is there for expanded utilization?

As recently as 1972, approximately one-fourth of the Army's Military Occupational Specialities (MOS) were open to women. Today, with only 35 of the total 438 MOS's closed to women, there is opportunity for them in approximately 92% of the Army's employments. But the mass migration of women from traditional to non-traditional MOS's is not occurring. In fact this is posing some problem to manpower planners since there is now excess in the traditional MOS's and a shortfall in the non-traditional MOS's.

In 1971, 86% of the Army's enlisted women were concentrated in four traditional career fields - 41% in administration, 31% in medical care and treatment, with 14% in the communications and supply fields. It can be seen from these figures that actually 72% of the women were concentrated in only two career fields. By 1973, the situation had changed very little with approximately 83% of the women still concentrated in the four traditional career fields - medical, administration/personnel, communications and supply [Office of the Director WAC, 1976]. But by FY 1975 the percentage of career fields open to women had begun to change. The

proportion of women employed in traditional fields decreased by 16% to a level of 70%, a significant shift considering it was achieved in just four years. Yet utilization of women in non-traditional career fields was still relatively low. The concentration of women in the four traditional MOS's had caused "... MOS overstrengths that stagnate promotion opportunities, impair equitable rotation, and ultimately detract from Army readiness." [U. S. Army Command and General Staff College, 1976].

One solution to this problem is to lift the restriction on the use of women in combat thus opening all the career fields to women. In the current thinking of the Army and the Congress this step is too drastic - a more detailed discussion of this question is found in the section on Definition of Combat. It seems expanded opportunity does not necessarily lead to expanded utilization. Just changing the regulations will not quickly change hundreds of years of social tradition. But the problem is so pressing that military planners fear many first-term women serving in these overstrengthened traditional career fields will soon be faced with the requirement to select another field in order to be eligible for re-enlistment. It is obvious that any discussion of greater, or expanded utilization of women in the Army will necessarily revolve around the controversial question of whether women should be employed in "combat" or "combat-related" roles. The Office of the Director WAC indicates the potential for women in the Army:

The years ahead offer us a great challenge as we test, evaluate, and refine woman's role in defense. There is a need for Army women to take full advantage of available opportunities and to continue the tradition of pride, performance, and professionalism in service to the nation...

[Office of the Director WAC, 1976]

And exactly what roles women do play in the Army will depend on various personnel policies decided in the next few years. Assessment of the available resources, resolution of the "combat" question and determination of the required force structure will have the greatest impact on these policies.

B. PERSONNEL POLICY

1. The Resources

The discussion concerning the All Volunteer Force highlighted the need to increase the numbers of women in the services to maintain quality and adequate size. But is the actual supply of females sufficient to achieve the established goals? There are three aspects of female accessions to be considered - availability in sufficient numbers, adequate quality, and a willingness to serve in non-traditional employments.

a. Availability

In a report by the Central All Volunteer Task Force on the Utilization of Military Women [1972] it was projected that in FY 1977 it would be necessary to attract one woman out of every 44 qualified single women in the full-time labor force in order to meet accession requirements. However this projection was based on 1969 data and requirements

supplied by the services prior to the introduction of the All Volunteer Force. Using data supplied to the Defense Manpower Commission [1976] based on the experience of the first full year of the All Volunteer Force (FY 1974), the prediction for FY 1977 was that it would be necessary to attract one woman out of every 75 qualified 18-year-old women in the full-time labor force. The 18-year-old population is significant because this is the age group from which the majority of NPS accessions result each year. Similarly, factors affecting this group through the next decade will also affect the other segments of the enlistment-age (17-26) population.

The predictions discussed in the impact of the All Volunteer Force on the need for women were based on the "worst case" (rapid economic growth) scenario. It is appropriate that the supply of 18-year-old women be analyzed under the same assumptions. It is easier to predict numbers available for enlistment in any year by a process of elimination. Table IV gives details of the projected supply of 18-year-old female accessions FY 1976 - 1985.

In-service, institutionalized and continuing students include all young women who graduate from high school and immediately enroll in colleges or technical/vocational schools on a full-time or part-time basis and also women in various institutions (prisons, sanitariums, etc.). In addition this category includes women who entered the armed forces in the previous fiscal year. The number in the unenrolled but employed category represent women who do not enroll in school or college but are holding civilian jobs on a part-time or

TAVLE IV

PROJECTED SUPPLY OF 18-YEAR-OLD FEMALE ACCESSIONS, FISCAL YEARS 1976-85
(thousands of persons)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Total 18-year-old female population	2062	2050	2089	2033	2002	1959	1883	1768	1737	1695
In-service, institutionalized and continuing students	922	916	934	909	895	876	842	790	776	758
Unenrolled, employed (rapid growth assumption)	688	688	705	690	683	672	649	613	606	594
Available pool (unenrolled, not employed)	452	446	450	434	424	411	392	365	355	343
Projected supply of applicants	18	18	18	18	17	17	16	15	15	14
Projected number of applicants selected	8	8	8	8	8	8	7	7	7	7
Projected demand for 18-year-old non-prior-service females	6	6	7	7	7	7	7	7	7	7

Source: Defense Manpower Commission, Defense Manpower: The Keystone of National Security, Report to the President and the Congress, U. S. Government Printing Office, Washington, D.C., April 1976, Table IX-7

full-time basis. By eliminating these people from the total projected 18-year-old female population, projections for the available pool can be obtained. The projected supply of applicants presented in Table IV reflects the 4.1% of women in the available pool who applied for enlistment in FY 1974. This contrasts sharply with the 54.2% rate for 18-year-old male applicants from the available pool in FY 1974. But this discrepancy may just reflect the attitude of women to the opportunities available in the armed services. As these opportunities improve, this application rate of 4.1% may increase. However since this analysis is a "worst case" scenario the 4.1% has been used as the basis for predictions.

The disparity between enlistment standards for women and men is highlighted by the different applicant selection rates for FY 1974. Only 46.0% of the women were selected, compared with 61.7% of the 18-year-old men. This is even more interesting knowing that the female applicants as a group were better qualified than male applicants (39% of all 18-year-old women who applied for enlistment in FY 1974 were mental Category I or II, compared to 24% of all 18-year-old male applicants) [Defense Manpower Commission Staff Studies, 1976].

Knowing this analysis is based on the "worst case" scenario, it can be concluded that the supply of potential female enlistees is sufficient to meet the needs of the services. Favourable changes in perceptions of opportunity and standardized selection rates will improve the projected supply situation.

b. Quality

Currently, women must meet higher standards than men for admission to the services. Female enlistees must be high school graduates and current statistics indicate that 15% of them have had college training. Women are accepted into the service from Mental Categories I, II and upper III (see Appendix A - Glossary), whereas men are accepted from Mental Categories I to IV. In 1972 the percentages of Army enlistees in the various mental categories were:

Mental Category	Male	Female
I	4.0	12.4
II	28.4	86.2
III (upper)	22.3	1.4
(lower)	26.5	0
IV	18.8	0

[Arbogast, 1973]

To determine the quality of the pool of 18-year-old applicants, an analysis using FY 1974 data was conducted for the Defense Manpower Commission. This was a cross-sectional analysis which characterized each of the fifty states according to the overall application rate for each sex in the 18-year-old group. This overall rate varied considerably across the states, so the states with high application rates were assumed to represent the nation under favorable supply conditions and the low rates represented unfavorable conditions. Figures 1 and 2 are diagrammatic representations of the findings of these analyses. The "average" applicant rate indicates how

a theoretically average group might be expected to react to changing supply conditions (such as unemployment rate, civilian pay levels, and attitudes). It should be noted that the number of total applicants are represented as a percentage of total population by sex and not total pool.

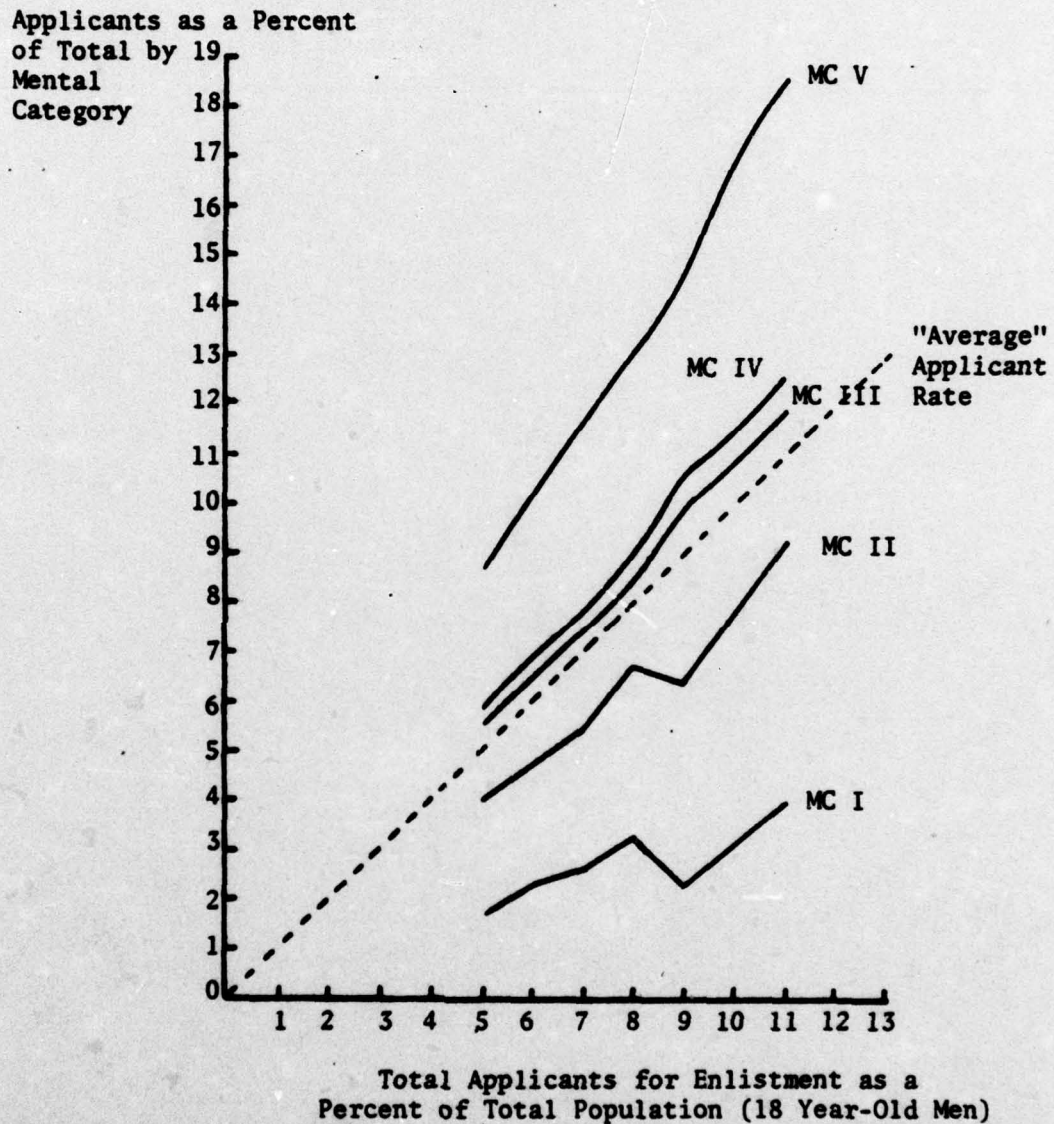
The study found when supply conditions for male applicants improved (thereby increasing the percentage of applicants), the mental category distribution of the applicant pool showed no appreciable change. Figure 1, however, does show that over the whole range lower mental category men (MC IV and V) are more likely to apply than higher mental category men (MC I and II). Contrast this situation with the statistics on female applicants. As mentioned above, women are less likely to apply for enlistment than men. This is reflected in Figure 2 by the lower range for application percentages. As the supply conditions improve generally, the higher mental categories (MC I and II) maintain a disproportionate share of the total female applicants. It is interesting to note that Mental Category I women are more sensitive to changes in supply conditions than are women in the lower mental categories. In drawing conclusions from this comparison it should be noted that the data on women may already be favorably biased, as knowledge of the higher enlistment standards could lead to potential enlistee self-disqualification and recruiter pre-selection screening.

c. Traditional vs Non-Traditional Employments

The number of female applicants demonstrates their willingness to serve in what has been a traditional male career

Figure 1

APPLICATION RATES FOR 18 YEAR-OLD MEN
BY MENTAL CATEGORY, 1974

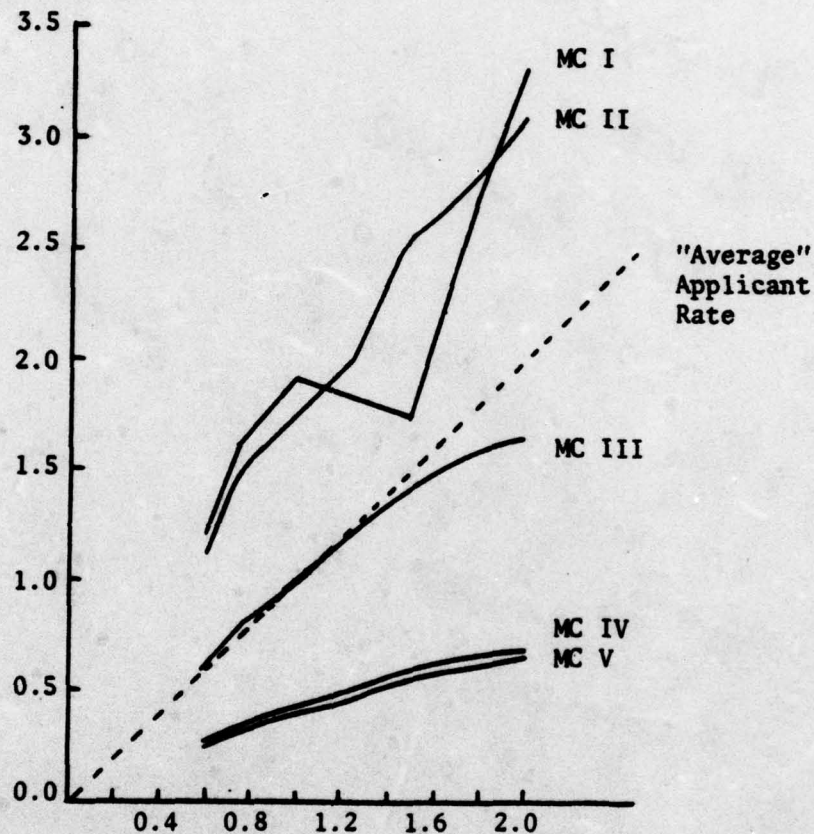


Source: Defense Manpower Commission Staff Studies and Supporting
Papers, Volume III, Military Recruitment and Accessions
and the Future of the All Volunteer Force, U. S. Government
Printing Office, Washington, D. C., May 1976, p. F-75.

Figure 2

APPLICATION RATES FOR 18 YEAR-OLD WOMEN
BY MENTAL CATEGORY, 1974

Applicants as a Percent
of Total by Mental
Category



Total Applicants for Enlistment as a
Percent of Total Population (18 Year-Old Women)

Source: Defense Manpower Commission Staff Studies and Supporting
Papers, Volume III, Military Recruitment and Accessions
and the Future of the All Volunteer Force, U. S. Government
Printing Office, Washington, D.C., May 1976, p. F-77.

field. Yet there appears to be a reluctance by the women to choose non-traditional employments within the services. The responsibility for this situation does not rest with any particular section of the services, rather it is a combination of history and generations of social pressure influencing utilization patterns today.

To meet the Army's needs in the personnel area, enlisting women must be informed of the viable and interesting careers available to them that do not fit the traditional mould. A "willingness to serve" needs to be translated into a "willingness to serve in non-traditional occupational skills" to overcome the imbalance in distribution of women in the Army. Any breakdown of traditional barriers within the services immediately raises the controversial question of enlisting women into combat-oriented careers.

2. Definition of Combat

There are no "legal" restrictions on the employment of women in the U. S. Army. This was discussed in the section dealing with Political and Legal Restrictions. It was stated that the Army followed the other services' restrictions by imposing similar Army regulations. These regulations, whilst precluding women from being assigned to CAT I units, do allow them to be assigned to CAT II/III and TDA units (see Appendix A). The preceding policies and the roles of these units restrict women from serving forward of the brigade rear boundary. As with the laws prohibiting the Navy and Air Force women from being in combat or combat-related positions, the Army policy is based on fundamental assumptions concerning

the role and capacities of men and women in relation to "combat". In a recent Training and Doctrine Command (TRADOC) study of content of women in TOE units, it was reported that most commanders objected to restrictions on the use of women forward of the brigade rear boundary. TRADOC never intended to totally exclude women from operating further forward but merely provided guidelines consistent with General Blanchard's statement: "Depending on unit mission, female soldiers should not be assigned in such numbers that their inability to defend themselves detracts from the ability of the unit to do its job." [U. S. Army, Women in the Army Study Group, 1976].

The greatest hindrance to liberalizing policy is the lack of a concise definition of that term "combat". Webster's dictionary defines combat as: "A contest by force; an engagement; an armed battle." Perhaps a more helpful clue is the definition of combatant, as: "a member of the armed forces who takes part in actual fighting." Since a universally accepted definition does not exist, the Army has established implementing policies based on its interpretation of national policy. The current application of policy restricts women from areas where there is a high probability of becoming involved in direct combat (i.e., where there is every likelihood of being a "combatant").

Theoretically, in a conventional war setting the danger from direct attack diminishes as the distance from the front increases. Whilst this philosophy was true in past wars, it is inappropriate under the modern threats of guerilla,

missile, and airborne attacks, where every military unit in a theatre of operations is vulnerable to attack. Hence the threat of involvement in direct fighting increases as technology improves. This is partially recognized now as women are required to be qualified in the use of some small arms.

Implementation of current "combat" policy ensures that the unit male/female mix in a combat theatre varies with distance from the conventional "front line". Perhaps the distinction should be between "combat" and a "combat zone". Mere presence in a combat zone does not necessarily imply that the individual is taking a direct part in the offensive operations but the possibility of being involved in defensive operations is still present. But this protective argument is a moot point since women are now assigned to units which undoubtedly will be deployed to combat zones in the event of war.

Some women desire to enter combat MOS's in order to move ahead in their chosen profession. In competing for prime jobs it is often recognized that combat experience will enhance one's chances. As long as there is a flat prohibition against women in combat, they will be denied the opportunities to obtain that advantage. It is often argued that women in combat would be more vulnerable to capture by the enemy, with all the attendant dehumanization suffered during the recent wars. This may be one of the many consequences society will have to accept with women in the military - it is not just a result of removing the combat restrictions.

Geographic or tactical limits on the employment of women in the Army seem less logical when it is realized that some "combat" units often operate to the rear of units in which they are eligible to serve, e.g., Pershing missile units. "Technical knowledge, professional competence and leadership ability have no sexual limitations." [Stevens, 1974]. Nancy Goldman [1973] assesses the prime military role as one of deterrence yet many of the deterrent tasks are losing the significance of traditional combat roles. There has been an expansion of sedentary noncombat jobs in which the "fighting spirit" is less relevant. With further technological improvement this spirit may become obsolete even for employments that have been traditionally classed as combat. Meanwhile it is worth recalling the report of the 1945 Board of the WAC which recommended that utilization of women in the military should not be determined by combat organizational levels.

The adoption of any particular definition of combat may not be as critical as first perceived since there are doubts concerning its relevance in modern warfare. It is recognized that current Army policies endeavor to reflect society's attitudes and perhaps society is not yet ready to accept women in combat roles. However, the Army has a responsibility to inform society of the increasing irrelevance of the traditional concept of "combat". Perhaps the first step to this end is removal of the restrictions on the use of women in the "combat zone" i.e., allow them to perform in their currently authorized MOS's without regard to the unit's role. Whatever official definition of "combat" is adopted,

the question of women in "combat" will remain a controversial and limiting variable until all restrictions are removed.

3. Force Structure

Even without a concise definition of "combat" the Army must determine what proportion of its forces should be women and where they should be employed. After resolving the overall size of the force, the optimal male/female mix within that force must be decided. However, these are not the only variables to be taken into account in determining force structure. Consideration must be given to career opportunities, combat/support rotation, tour lengths, effects on mission accomplishment and deployability, as well as rank space allocations if greater utilization of women in the Army is to be planned.

a. Size

In 1974 the U. S. Army consisted of approximately 13 divisions and the DOD and Army program calls for an increase to 16 divisions by the end of FY 1976. The five-year plans project a levelling-off at this Active Army level of 16 divisions and approximately 790,000 active military personnel. The projected WAC expansion plan is presented in Table V.

TABLE V

PROJECTED WAC ACTIVE ARMY STRENGTH

	<u>Enlisted</u>	<u>Officer</u>
FY 76	40,400	1,604
FY 77	44,400	1,960
FY 78	47,300	2,114
FY 79	50,400	2,252

Source: Office of the Director, Women's Army Corps,
The View from Here, January 1975.

But exactly how is the actual number of women within the total force determined?

In 1975 TRADOC conducted a study to determine the maximum number of female soldiers who could be assigned to CAT II and III units without degrading unit effectiveness. The essence of any force size determination model is the designation of interchangeable positions which can be filled by either male or female. Military force planners need to know the total number of interchangeable positions within the total force before any management decisions can be made regarding the number of women the Army "should" employ. Basically this initial step involves the distinction between "could do" and "should do". The recognition and documentation of interchangeable positions provides force planners with the total number of women that "could" be employed in the Army.

By 1975 over 100,000 interchangeable positions in the Army had been identified compared to 19,000 in FY 1973 [Defense Manpower Commission Staff Studies, 1976]. Even in determining the number of available interchangeable positions, the policy of excluding women from CAT I units has had an impact on the opportunities available to women. But this is consistent with the Army's assessment of national policy concerning women in combat. If this policy were to change, there would be an immediate increase in the number of interchangeable positions available to manpower planners.

b. Composition by Rank

The ideal situation is to allow everyone to compete on their own merits for promotion. But the imposition of levels

of utilization of women in the total force necessarily means that sufficient opportunities for promotion must be available for both men and women in the Army. Public Law 90-130, passed in November 1967, removed the restrictions on the promotion of women officers and made it possible for them to achieve general officer or flag rank.

Since the rank structure is tied closely to the detailed unit male/female mix, it is difficult to separate rank structure from the discussion on mix policies. Also, the promotion opportunities for men and women are variables used in models to determine actual male/female force composition which will be discussed in the next two sections.

c. Desirable Unit Female/Male Mix

In April 1975 TRADOC completed its doctrinal review of WAC content in TOE units, and made the following comment:

There is no perfect way to arrive at a maximum ceiling on the number of women who can be assigned to TOE units without degrading the unit's capability to perform its mission. The determination of specific percentages to express ceiling limitations is largely a subjective exercise.

[Training and Doctrine Command, 1975]

Despite this difficulty, TRADOC did establish percentages on maximum female fill of CAT II and III TOE units:

1. Units which operate forward of the brigade rear boundary - Zero percent.
2. Units operating between division and brigade rear boundary - 10%

3. Units operating between corps and division rear boundaries - 15% to 30% depending on type of unit.

4. Units operating behind corps rear boundary (Communications Zone) - 25% to 45% depending on type of unit.

5. Continental United States (CONUS) unique units - 25% to 50% depending on type of unit.

[Training and Doctrine Command, 1975]

These decisions were based on the overall policy of exclusion of women from combat; the probability of deployment of TOE units to combat theatres; and the demands for physical work. But these subjective percentages need to be validated by determining actual performance records of the various types of units if the percentages are to be defended on a necessity basis. One immediate question is why 45% as the maximum ceiling and not 51% (the approximate proportion of females in the population)? The Army Research Institute (ARI) has been tasked to conduct a test entitled MAX WAC. This is an attempt to provide factual data on an acceptable level of female content for the Army. The purpose of the test is to "assess the effects of varying the percentage of female soldiers assigned to representative types of TOE units which do not operate forward of the brigade rear boundary on the capability of a unit to perform its TOE mission under field conditions." [Army Research Institute, May 1976]. It has been stated that the results must provide a basis for defending to Congress and the Courts constraints on selection criteria and the number of female accessions. It is also

desirable that the results provide a basis for defending policies and rules pertaining to women's assignments in times of peace and war.

In this test up to 40 TOE companies will be given an ARI/TRADOC-developed Army Training and Evaluation Program (ARTEP). Fifteen of these companies (referred to as the repeated measurement companies) will be given the ARTEP twice whilst the remaining 25 companies will be given the ARTEP only once. The companies belong to five types, namely, maintenance, medical, military police, signal and transportation. The analysis of the results will be based on the mission performance score obtained on this ARTEP by each of the units tested. The fill of female soldiers in the repeated measurement companies will be different for both ARTEP periods, but will range from zero to 40% in accordance with the outline in Table VI. Each ARTEP will have a standardized scenario, and a standardized training sequence will precede each ARTEP period. The inclusion of single measurement units in the test is an endeavour to control for as many variables as possible that could bias the results of the test.

Collateral research data will be collected during the tests by ARI staff covering such topics as attitudes to women and women's roles; demographic variables; and opinions on the impact of women on unit effectiveness. It is expected that the test will be completed by June 1977 and the results available to have impact, if need be, on the FY 1979 female personnel level.

TABLE VI

MAX WAC TEST PROGRAM

Companies Type	5			5			10			15		
	Repeated Measure	Cross	Repeated Measure	Repeated Measure	Cross	No	Repeated Measure	Single Measure	Single Measure	Repeated Measure	Single Measure	Single Measure
Fill and Training	Cross	Cross	Cross	No	No	No	No	No	No	No	No	-
Period	fill	fill	fill	fills	fills	fills	fills	fills	fills	fills	fills	fills
Oct-Dec 1976	0%	15%	As	As	As	As	As	As	As	As	As	Not
ARTEP Cycle	fill	fill	fill	found	found	found	found	found	found	found	found	tested
Fill and Training	Cross	Cross	Cross	Stabilized	Stabilized	Stabilized	Stabilized	-	No	No	No	No
Period	fill	fill	fill	fill	fill	fill	fill	fills	fills	fills	fills	fills
Jan-Jun 1977	15%	35%	Same as	Same as	Same as	Same as	Same as	Not	As	As	As	As
ARTEP Cycle	fill	fill	fill	first cycle	first cycle	first cycle	first cycle	tested	found	found	found	found

Source: Army Research Institute for the Behavioral and Social Sciences, Women Content in Units. Research Design, unpublished document, 1976.

The objective of the test is "to provide empirical data to test the null hypothesis that specified increases in the proportion of women in selected TOE units will not impair unit performance." [Army Research Institute, May 1976]. With this objective the results of the test will not provide the Army with the answer to what "should" be the female fill in units. There is no doubt that the test will determine if there is any relationship between the number of females and unit performance, but as the TRADOC letter stated, the determination of correct percentages of female fill in units is a subjective assessment. However, the U. S. Army does have a number of quantitative models that it does use to determine the present percentage of female fill in units.

d. Force Models

Currently the U. S. Army is using a number of quantitative models to help its force planners decide the optimal force structure. The first of these was the Women's Enlisted Expansion Model (WEEM), developed in 1974 to validate the increased goal of 50,400 women in the Army. The WEEM bases its calculations on the total number of designated interchangeable spaces and has been most useful in helping determine the required number of female accessions per year. In September 1975 it was decided by DCSPER that the WEEM could be adapted to the officer structure and so the Women Officer Strength Model (WOSM) was developed. Essentially the two models use the same logic and variables in calculating the Army's requirements.

These models are quantitative models and therefore limited in the type of management decisions and policies which can be quantified and programmed as variables. Hence there was a need to develop a system capable of determining the non-prior service (NPS) accession requirement to support the quantitative programs for women in the Army. In addition the impact of various policies, plans and management decisions on force structure had to be determined. So a parametric system has been proposed. "For a given set of parameters it will allow personnel managers to determine the non-prior service (NPS) accession requirements to support the women's enlisted force (while satisfying management considerations) ... It merely quantifies the implications of policies, plans, programs, and regulations." [U. S. Army, Women in the Army Study Group, 1976].

(1) Women's Enlisted Expansion Model (WEEM)

The purpose of WEEM is to develop the maximum female content by MOS and rank to ensure a balanced distribution of the female force with management guidelines. WEEM also determines, for recruiting purposes, the maximum number of females consistent with total strength authorizations and male combat requirements. It considers three basic factors for each MOS: interchangeable positions, career progression and rotation equity. (Since interchangeable positions are not in combat units, WEEM follows the policy of no women in combat roles).

The interchangeable spaces for each MOS and rank applied in the WEEM computations are those designated according to the TRADOC criteria, mentioned above (i.e., the

various percentage levels for different types of units). Basically the computation process involves gradual elimination of available female spaces to incorporate as many management requirements as possible. Department of the Army (DA) policy is to provide equal rotation opportunity for male and female soldiers - currently regulations require a minimum CONUS tour length of 12 months and a maximum of 36 months. WEEM has to allow enough spaces in CONUS to provide sufficient rotation for overseas male combat spaces. To ensure equality of opportunity it may be necessary to temporarily close a particular MOS to women because of this rotation requirement. Promotion opportunity for males is also considered by computing a combat ratio (combat authorizations/total authorizations). The net result of the model's computations thus far is a theoretical number of spaces available to women in each MOS. The maximum female content is then determined by the minimum of the theoretical or interchangeable spaces.

Finally a rank space ratio is computed to ensure normal career progression for females in the MOS. The ratio is derived by dividing the total required force spaces at the highest MOS rank level by the total required spaces at the next lower rank level. Where rank space ratio is greater than maximum female content for that rank the maximum female content is restructured to reflect the ratio of total strength authorizations. This then provides a total maximum number of spaces available for women according to rank and MOS. Total female positions still available (for recruitment)

are then computed by taking the difference between current female content and maximum female content.

(2) Women Officer Strength Model (WOSM) Since the WOSM is just an adaptation of the WEEM to the officer structure, the calculations are identical. But, instead of MOS interchangeable positions being the initial input, interchangeable positions by skill specialties are used. The WOSM, like the WEEM, excludes CAT I units and combat arms specialty positions; ensures equity in promotions by utilizing the combat ratio already mentioned; ensures equity also in rotation and career development; selects the lesser of the theoretical or interchangeable spaces; and checks for sufficient career progression available for women within a particular skill specialty.

Assuming equal quality distribution amongst male and female officer populations, promotion equity is ensured by reserving enough noncombat force structure spaces for male officers. Provision of equal professional opportunity is mostly guaranteed by ensuring both promotion and rotation equity. The basic approach used by the Army for officer professional development and utilization is a new concept of dual specialty development. This new approach is being developed under the Army's Officer Personnel Management System (OPMS) but dual specialty designation has not yet been incorporated into the WOSM. It is expected the impact of dual specialty will be analyzed following completion of the Officer Dual Specialty Allocation System (ODSAS) Model in late 1976. [U. S. Army, Women in the Army Study Group, 1976].

(3) A Parametric Approach The parametric system mentioned above has been recommended by the Women in the Army Study Group as a method for determining NPS accessions for enlisted women. The model integrates designated interchangeable positions; combat exclusion policy; TRADOC maximum female fill percentages for each unit; WEEM output; reconstructed force data (i.e., total trained soldier requirements); and the Enlisted Force Management Plan (EFMP), which expresses the Army's long term objectives for the personnel management of soldiers (e.g., quality selectivity, re-enlistment controls, and year-group management). The model follows a six step process on a rank by rank basis:

Step 1. Obtain total enlisted authorizations.

Step 2. Redefine authorizations according to combat exclusion policy (i.e., exclude closed MOS's and CAT I units).

Step 3. Apply TRADOC's maximum female fill percentages.

Step 4. Apply WEEM.

Step 5. Restructure the force.

Step 6. Apply the Enlisted Force Management Plan (EFMP).

Step 1 to Step 3 provide the input required for WEEM. The WEEM provides the maximum number of positions for women, by rank and MOS to ensure a balanced distribution of enlisted women. In Step 5 the force is reconstructed by determining the number of trained individuals needed to support the WEEM output. The two major parameters contained

in EFMP are the objective grade structure for the enlisted force (i.e., distribution of grades allowed by Congress and DOD) and the objective continuation rates (i.e., the rate at which the force continues service from one year to the next). In Step 6 EFMP parameters are applied to the results of restructuring to determine NPS accessions.

Although this system has been recommended for use with the enlisted force structuring, it is considered that the same process could be used to determine officer accession requirements. The WOSM was adapted from the WEEM and with the new Officer Personnel Management System in operation the calculating formula may be adapted to determine officer requirements.

C. SOCIOLOGICAL CONSIDERATIONS

Attitudes have a major impact on the optimum utilization of women in the Army. Brig. Gen. Clarke, Director WAC, referred in January 1976 to a quotation about equality. "The world of humanity has two wings: one is women and the other men. Not until both wings are equal can the bird fly." [Johannessen, 1976]. To achieve equality there must be a change of attitude. Society's attitudes toward the role of women in the Army, particularly women in combat, are virtually unknown. Not only is it necessary to change the attitudes of men who do not recognize women's capabilities, but also women's attitudes about themselves and other women. Any attempt to change attitudes involves educating society as to the real physiological and psychological differences between men and women.

There must be increased respect for individual capabilities and qualifications, and elimination of any stereotyping based on gender.

1. Attitudes

- a. Society

The general increase of women in the labor force and their inroads into traditional male employments has led to a change in society's attitudes concerning their capabilities. Cases of women performing satisfactorily in traditional male employments are no longer newsworthy. Yet these changes have filtered slowly through to the armed services. The acceptance of women in the military has been overshadowed by the controversy surrounding the possible acceptance of women in combat.

Society's attitudes being all-encompassing, are almost impossible to analyze without definite survey data on a number of specific subjects. An attitude comparison of different segments of the civilian and military populations is contained in a section below, entitled Comparison of Attitudes. It is sufficient to mention here that civilians are more strongly opposed to women being employed in combat than are Army personnel.

One particular aspect worth mentioning in this section is the much quoted negative attitude of spouses to women in non-traditional roles. The assignment of women as crew members of the hospital ship USS SANCTUARY in 1974, brought open hostility from the wives, who opposed their presence on the ship. Despite the fact that hospital ships

have always had nurses (females) aboard, the wives were concerned about the expected open sex opportunities. These attitudes are real to these wives but unrealistic in a social context. Men and women have continually been exposed to close working relationships in many occupations, but these fears have never been as vocal nor as openly hostile. It should be realized that these are really unsubstantiated fears and should not restrict career opportunities for women in the service.

b. Potential Female Enlistees

Although there is an abundance of studies addressing the issues of personnel acquisition and the various attitudes of potential enlistees to service in the military, they are predominantly confined to analyses of the male population. Surveys allowing comparison of female and male attitudes to service in the military are yet to be made. Ippoliti [1976] reported on a study of college women who chose an innovative occupation or career. Innovative women were defined as those entering an occupational field where women were under-represented relative to their representation in the college-educated labor force (i.e., less than 30%).

Although this was a selective sample, their findings were:

1. Role Innovative Women (RIW) do not reject core female roles of wife and mother, but expect to postpone them and have fewer children.
2. RIW do not have masculine self-images.
3. RIW are more autonomous, individualistic and internally motivated to perform to capacity than women going into feminine professions.

4. They express more doubts about their ability to succeed and about identity, possibly reflecting the more difficult performance standards of the roles they have chosen and the ambiguity of their social meaning.

[Ippoliti, 1976]

c. Male Soldiers

Brig. Gen. Bailey [Commanders Digest 14(19), 1973] stresses that potential capability is the most important thing a commander needs to know about Army women. If he allows himself to be influenced by myths then his utilization of women will be biased by perceived limitations. Thus, acceptance of women in the military depends largely on men's attitudes.

To many soldiers the presence of women becomes a threat to their position. From personal observation this attitude seems most prevalent in the officer ranks of major and lieutenant colonel. In endeavoring to rationalize this phenomenon it became obvious that day to day unit command responsibility is concentrated at this level. The junior officers can abjugate responsibility to the unit commanding officer in cases where sensitive decisions involve sex discrimination. The unit commander has guidelines from higher headquarters on many matters but must ultimately take full responsibility for any unit policies. Since this is the level at which any controversial decisions have most impact, it is understandable that these ranks feel most threatened by increased utilization of women. Additional threat stems from the general changes in procedures falsely attributed to

the acceptance of women into the Army. In many instances the women have been the catalyst for the Army to look at its procedures and update many antiquated regulations. Generally people are averse to change, but surely it is in the Army's best interests to review and update its policies regularly. It is a pity that these changes have been ascribed to the increased numbers of women in the Army. Women may also pose a threat to the male soldier in his "machismo" realm. Cultural history has led us to associate strength, aggression and courage with the male soldier, and now this image is supposed to include women. But apart from these notions of threat, male attitudes to women vary from over protective to very resentful.

Some men are very traditional in thinking that women should not lift heavy loads or get dirty, that they should be given all the easy jobs, and concessions should be made for "female problems" (like menstruation). Of course there is no denying that there are women, even in the military, who feel they should be treated in this manner. At the other extreme, there are men who resent increased utilization of women because they see work disadvantages for themselves. Oft quoted disadvantages are doing all the unpleasant or heavy-lifting tasks; increased amount of time spent in field-type units; more guard duty at the worst posts in the worst conditions; and increased workloads due to pregnancies. Some of these perceived disadvantages are being adjusted by means of the expansion model (WEEM) discussed earlier, but some disadvantages for the men will be a direct result of biased

attitudes of male unit commanders to the utilization of women in their unit. Many men see their military counterpart first as a woman and second as a professional soldier. Yet there seemed to be a noticeable difference in the attitudes of military personnel interviewed who had contact with women in a working environment. Generally, men's attitudes appeared more favorable to women in those units where women were being employed or trained in non-traditional roles. In 1976 a study by Segal and Woelfel found that "while association with women does influence men's general sex-role attitudes, its impact is weaker on attitudes about the appropriateness of specific traditionally masculine jobs." But the main point is that men's attitudes impact heavily on the optimal utilization of women and problems in these areas must be recognized and action taken to solve them.

d. Female Soldiers

Military women, like the men, fall into two categories when asked to consider their increased utilization in the Army. There are those who express some fear because their attitudes have been moulded by one or more of the following experiences in the Army:

- (1). Women in the military may encounter role conflict, because in many situations a desire for personal fulfillment clashes with the traditional sex-role as defined by society.
- (2). A threatening aspect for some women is that equal rights bring with them equal responsibilities and they are not yet ready for these responsibilities. These military women have, in the past, been attracted by some opportunities of equal pay for equal rank yet not for equal work. But increased utilization naturally tends to discourage perpetration of this attitude.

(3). Insufficient women entering available non-traditional MOS's in the Army could illustrate female awareness of an uncertain future in those specialities.

(4) Women in the military must often defend their performance as a woman rather than as an individual. Often when a woman exercises bad judgement it is construed as a direct result of her being a woman rather than a fault in her individual performance. An attitude of resentment develops within such women since the men's performance is evaluated on their own merits and not according to their sex.

But then there are the women that are genuinely interested in having all aspects and opportunities of a profession available to them. The attitudes of these women are typified in an adapted version of Helen Reddy's current pop song "I am Woman." This song is featured on an audio/visual tape about Female Officer training and is sung by a group of female officers:

I am woman and a WAC
Oh its experience that I lack
Still I'm ready to take my place beside our
men.
And I know it for a fact
That with my country I made a pact
America I'm ready to defend

(Chorus) Oh, yes, I am wise
But it's wisdom born of pain
Yes, I've paid the price
But look how much I've gained.
If I have to I can do anything.
I am strong, I am invincible, I am woman.

[Chorus Copyright 1972 Irving Music Inc.]

The song also illustrates the frustrated attitude of women not able to utilize their full capabilities.

e. Comparison of Attitudes

The Women in the Army Study Group [1976] reviewed a vast number of attitude surveys conducted by service and

civilian institutions in the last four years and grouped their results under broad topics. Various segments of the civilian and military population were surveyed and their attitudes were compared and analyzed for each topic. The critical areas and results are presented here:

(1) Combat. As mentioned above, this is by far the most controversial topic, and forms the basis for current policies on utilization of women in the Army. The exclusion of women from certain MOS's and types of units is based solely on the assumption that "society" will not accept military women in combat roles. The questions asked in surveys on this subject could be classified into two categories: the philosophical (or "should" they participate) and the pragmatistical (or "can" they participate). In the philosophical category, a 1973 survey conducted by the University of Michigan found that approximately 74% of the civilian populace surveyed (persons eighteen years of age or more, residing in the Detroit area) agreed that men rather than women should bear arms. This view was also taken by military personnel in surveys conducted by ARI. However it should be noted that surveys of military personnel are usually from a sample which is heavily biased by male representation (e.g., a 1974 ARI survey of military personnel comprised 75% male subjects and 25% female subjects). For a survey to purport to represent society's views the sample composition must closely resemble that of society.

In the pragmatistical sections of the various surveys, researchers addressed the question of the ability

of women to serve in a direct combat role. Generally men perceived women's abilities to perform as good frontline soldiers with less confidence than did women. These perceptions may have been affected by the extent of previous combat experience, but this does not alter the fact that there are differences in opinion regarding the capability of women. It was also found that generally women are aware of the male objections to their service in combat roles.

(2) Command/Leadership. Survey results suggest that men actually support women in command positions but not as strongly as do the women, and in particular, the women officers. However where questions related ability to command with combat situations women did not fare so well. The negative attitude of men to women in combat is in contrast to their general positive attitude to women in command positions. The overall effectiveness of the Army would increase if more women were in command positions according to 20% of the women surveyed. The majority of male officers (51.1%) thought the effectiveness would remain unchanged if this occurred, but the majority of enlisted males (54.8%) thought effectiveness would decline.

(3) Job Performance. The men generally believed the women's performance was good. In a survey conducted after the large increases in numbers of women in the Army, male respondents expressed doubts as to the physical capabilities of the women. The women also expressed the same mixed feelings about their capabilities. It is interesting to note the attitudes of enlisted women to some of the proposed changes

affecting them as a group. In such areas as taking on extra duties performed by males, modification of entry requirements into MOS's, and tougher training requirements, the surveys found enlisted women were less receptive to the ideas than the men and the female officers.

2. Physiological and Psychological Nature of Women

In May 1976 the U. S. General Accounting Office (GAO) reported that a large number of women had been assigned to MOS's with physical and operational requirements which limited or precluded their effective performance. They attributed this to the lack of physical standards (strength and stamina) and operational performance standards. The services were also criticized for training conditions which did not always represent field conditions.

In preparation for the entry of women into West Point, the Office of Physical Education, USMA and the Army Research Institute of Environmental Medicine (ARIEM) conducted studies to gain data on the physiological differences between men and women. In an extensive literature review conducted at USMA [Peterson, 1976] it was reported that much of the performance dissimilarity between men and women was due to physiological differences. The review grouped these differences under three main subjects: anthropometrics and body composition, cardiorespiratory factors, and menstruation.

Comparisons of adult male and female anthropometric and body composition factors are summarized in a table at Appendix B. Men have greater lean muscle mass and greater size and level of strength and hence perform better than

women in situations requiring explosive power. Peterson [1976] reports that even when size is held constant, females are only 80% as strong as males. The different construction of a woman's elbow joint results in poorer performance in throwing situations (e.g., throwing grenades). Another well-known difference is the wider (approximately 0.5") and rounder construction of the woman's pelvic girdle. This, coupled with softer joints and ligaments in the pelvic girdle disadvantage women in running and jumping situations. With regard to body composition, Peterson reports women have less bone mass, less muscle component but more fat than men. This has a negative effect on performances requiring strength, speed and power. The greater weight in the thigh region means the female center of gravity is 0.6% lower than that of males, resulting in slower speed of movement in females.

Peterson [1976] reports two major implications of cardiorespiratory differences between men and women: (1) men have a greater potential for endurance than women; and (2) at submaximal work levels, women have to work much harder to accomplish the same amount of work. Men have larger lungs and heart and hence can consume larger volumes of oxygen than women; men are superior to women in terms of aerobic capacity; and men have greater tolerance to heat than women. Women will also reach exhaustion sooner than men because they have a lower percentage of red blood cells (oxygen-carrying component in the body) than men. U. S. Army, Women in the Army Study Group [1976], reports that women have a faster cooling rate

and lower skin temperature than men. Once reduced blood circulation has occurred in severe cold climates, female tolerance time is less than that for males.

There is no conclusive evidence as to the exact effects of the menstrual cycle on physical performance. Research into this subject is hampered by the necessary data collection method (self-reported inventories or questionnaires) and experimental bias. But the research that has been conducted concludes that sports activity has little effect of menstruation and recommends that physical activities should not be restricted for women at any phase of their cycle. However, Peterson [1976] does indicate that little is known about any psychological influences on physical performance during a woman's menstrual cycle.

To establish factual data on the physical abilities of 16-18 year old women in preparation for the admission of women to USMA, the Academy conducted a comparative test (Project 60) of two types of physical training programs (strength building and exercise). The subjects were sixty volunteer female students from a local high school. From this test it was concluded that the young women in Project 60 were generally more physically proficient than the literature review intimated. But on some tasks even above-average female performers registered at a level below the average male cadet. Project 60A followed soon after and focussed on physical differences as they affected specific segments of training and the findings are discussed later in the section on Officer Training in Chapter III.

A recent study into psychological differences found no clear prescriptive answer to questions concerning the nature and extent of these differences between men and women [United States Military Academy, 1976]. However, the study did reveal some fairly well-established findings, such as the tendency for females to excel in verbal measures of intellectual ability, whilst males tend to excel in visual-spatial and mathematical abilities. Males are clearly more aggressive, but usually towards other males. But some differences are not clearly substantiated or can be clouded by social norms. For example, females report more than males that their behavior is influenced by tendencies to be fearful and anxious. Males tend to demonstrate their competitive behaviors to a greater extent than females. The influence of social norms is evidenced by the tendency for males to strive for dominance more than females. Of significant interest to the military is the apparent acceptance of authority more readily by females than males. Young males appear to be guided by peer norms more often than do young females. The young males appear to be slightly more persevering, enduring and unrelenting whilst young females tend to act slightly more methodically, conservatively, dependently and conventionally than young males.

"Women come into the Army with expectations of firm discipline, hard and challenging work, and equal treatment but become dissatisfied when they do not find these." [United States Military Academy, 1976]. This study also reports that there are indications, at least in the short term, of sex differences in psychological behavior in a military environment.

The most noticeable of these are differences in emotions, but these are a function of social norms, role expectations and stereotyping. It is reported women are also quicker than men to express homesickness. This manifests itself in the form of crying, requesting discharge, withdrawal or lack of concentration. Women reportedly take stress very well, but in situations with which they have never learned to cope, they release their emotions by crying, exhibiting exhaustion or some psychosomatic illness. This finding is unusual, since Nora Kinzer [1976] reports that Army Nurse Corps women displayed calm demeanor under combat stress conditions. Kinzer maintains that their example indicates women do not necessarily have emotional breakdowns when faced with the atrocities of combat situations.

Attitudes of both men and women have a major impact on the utilization of women in the Army. It is difficult to separate the effects of attitudes from any psychological differences, but attitudes of both sexes were discussed separately in earlier sections. More research is required to determine the nature and extent of any psychological differences.

3. Influence of the Press

Attitudes and behavior norms are greatly influenced by the media, both television and the press. Press coverage of new policies regarding the assimilation and utilization of women can help or hinder the effective implementation of those policies. Attitudes are either negated or confirmed by the

media and so it is to the services' advantage to ensure that reporting is accurate and not damaging to the goal of optimal utilization. Army Regulation 360-5 (Public Relations) paragraph 22b states the policy on photographing women in the Army:

Women will be photographed in poses which reflect feminine dignity and decorum... As the majority of women do not wear field or training duty uniforms on the job and are not in jobs associated with weapons, photography that concentrates on these aspects present a false and misleading impression that does not project the most favorable image of women.

[Johannessen, 1976]

Sometimes the actual photograph is not the problem, but the accompanying caption can often damage the image of women in the Army. It is understandable that the media will only be interested in items of news that sell newspapers or capture viewing audiences. Hence photograph captions are used for motivational purposes and are not necessarily factual. It is not suggested that the military conduct mass censorship of the media, rather military managers should be aware of the influence of the press on the attitudes of society and their own soldiers. A prime example of a photograph caption degrading the image of women in the military appeared recently in a pictorial newspaper as the result of a press day at the USMA, West Point. The photograph depicted a female plebe removing some of her webbing equipment - the caption read "And Tradition Goes Bust."

On 13 October 1976 a story entitled "She Was Too Much a Lady for West Point, She Says" appeared in the Monterey

Peninsula Herald. It concerned a young woman who had left the USMA because she felt she was being forced to play the role of a man. The printing of the story in October led readers to believe the young woman had only recently resigned (i.e., a possible length of stay at USMA of approximately 14 weeks), however on close examination of the story it was reported that she had left West Point after only two weeks. Although factual in its report such timing of the story's release could mislead society in the formulation of attitudes concerning new utilization policies. Although these incidents are anecdotal, they are used to ensure military managers are aware of the possible influence of a differently motivated media on attitudes to utilization policies.

4. Stereotyping

An often quoted complaint by women's groups is that even the most sophisticated and sympathetic male managers cannot easily shed deeply ingrained attitudes regarding the proper roles of women in society. These attitudes creep into many decisions in which a person's sex is not an obvious factor. Very often these are not straightforward decisions involving favored treatment of a man over a woman, but rather decisions which result in a specific treatment of women, without any regard to how a man would be treated in identical circumstances.

Various traits of a "perfect man" and a "perfect woman" as established through sex-role stereotypes are listed in Appendix C [Ippoliti, 1976]. Many of these traits are similar to the physiological and psychological differences

discussed earlier. Other research has indicated that there is a positive relationship between the profile of mental health for an adult male and the general profile for a healthy adult, sex unspecified. "Healthy adult female behaviors, then, are seen as less socially desirable and less mentally healthy than the behaviors of healthy adult males." [Gilsdorf, 1975].

In recognizing the existence of stereotypes it is necessary to make the distinction between prejudice and discrimination. "Prejudice is making assumptions about individuals based upon the presumed characteristics of a group. When you make a decision about an individual woman based upon the presumed characteristics of all women you discriminate." [Johannessen, 1976]. Hence prejudiced individuals may or may not discriminate, and discrimination does not necessarily imply the existence of prejudice. Yet judgements concerning individuals are made, not on the basis of their own behavior but on actions rightly or wrongly attributed to their group.

Blatant discrimination is the easiest to eliminate by regulations and procedures. Indirect and passive discrimination is more elusive. Indirect discrimination results from procedures or regulations which are discriminatory in their effect, whether or not that effect was intended. Most legal cases involving sex discrimination are fought on the basis of Title VII of the Civil Rights Act of 1964 forbidding employers and unions from discriminating on the basis of race, color, sex, religion or national origin. Any employment policy which discriminates against women may still be authorized under the Bona Fide Occupational Qualification (BFOQ) exception.

The U. S. Army is currently reviewing its regulations and procedures to determine whether any discriminatory policies are not based on recognizable differences between the sexes. Bearing in mind the inconclusive evidence on sex differences, this task may be a continual process with no clear answers. Passive discrimination, on the other hand, comes from acting on unthinking assumptions about jobs or individuals. Education programs can partly overcome this problem by making military commanders aware of the consequences of adherence to sex-role stereotypes. It is necessary to impress on military managers that any decisions about employments, promotion, etc., must be made on the basis of the individual's own ability rather than on the basis of sex.

Recently, two theories have been invoked to explain the treatment of women in male-oriented positions, namely Attribution Theory and Equity Theory [Terborg, 1975]. Attribution Theory states that equally satisfactory performance on a perceived masculine task by men and women is attributed to different factors. If a woman performs well in a masculine occupation, a male manager attributes her success to performance factors which are free to vary, such as luck, rather than to skill in making correct decisions. Equity Theory states that if male managers hold traditional attitudes towards women, then it is reasonable to assume that they will not perceive women as having the same input level as men in masculine occupations. Hence women can be disadvantaged in performing in male occupations where the presumed characteristics of all women are applied. The first step towards eliminating

all discriminatory behavior in the military is to recognize that prejudices do exist because there has been strong social stratification into stereotypes.

III. MANPOWER MANAGEMENT

This chapter provides an insight into current implementation policies for the optimal utilization of women in the U. S. Army. Many of these policies are a direct result of specific decisions and procedures considered in the chapter on manpower planning. Often the procedures developed for planning purposes are in themselves the means for implementing the decisions. Hence extensive reference will be made in this chapter to models and procedures discussed in the previous chapter.

A. CAREER DEVELOPMENT

1. Recruiting and Selection

a. Entry Standards

In the discussion on discrimination it was noted that passive discrimination resulted from acting on unthinking assumptions about jobs or people. This type of discrimination is most likely to occur in the areas of recruiting and selection. Generally the enlistment qualifications are the same for men and women. A man or woman with one dependent child under age 18 may be enlisted provided that his or her spouse is not also joining the military. A waiver is required if there is more than one child. An unmarried person (male or female) with a child under age 21 is not qualified for enlistment, but may apply for a waiver if he or she is divorced and the child is, by court order, in the custody of the other parent.

Differences still exist in educational and mental standards between male and female enlistment. Female enlistees must be high school graduates, whereas men need not; and females must obtain a higher relative score than men in qualifying examinations. As of October 1975 all non-prior service accessions are given the Armed Services Vocational Aptitude Battery (ASVAB) as qualifying examinations. The scores from the ASVAB are used to assign men and women to entry level school training. One possible area for passive discrimination is the composition of the ASVAB. Since the ASVAB was first developed it has been expanded to some sixteen subtests including, for example, Numerical Operation, Word Knowledge, Arithmetic Reasoning, Mathematical Knowledge, Mechanical Comprehension and Automotive Information. These sixteen subtests are then combined in various patterns to achieve four aptitude indices: Mechanical, Administrative, General and Electronics. An examination of all sixteen subtests reveals that their content is weighted heavily towards mathematical and technical knowledge.

Women score as well or better than men in those tests which are used to assign enlisted personnel to such occupations as: Medical Care, Administration, Data Processing, Drafting, Surveying, Photography, Weather. Women score distinctly lower than men on those tests which are used to assign people to maintenance and repair jobs. Although most women score low on the electronic and mechanical aptitude tests, some will score high enough to enter maintenance type jobs previously reserved for males.

[Central All-Volunteer Force Task Force, 1972]

Vitola [1971] found that WAF enlistees achieved higher Administrative and General Aptitude indices on the

ASVAB than the male enlistees. Since women display better aptitudes than men in the General and Administrative areas, the predominance of technical type tests in the ASVAB may be discriminatory. The actual cutoff scores for male enlistment vary according to the available pool.

The legality of different standards for enlistment has been challenged in the courts in the case of Barbara Praise, et al., plaintiff, versus James Schlesinger (Secretary of Defense), et al., defendants. In his testimony in this case Brig. Gen. J. M. Wroth (then Director of Plans, Programs and Budget, Office of the Deputy Chief of Staff for Personnel) stated that it was Army policy to set enlistment standards at the highest level to achieve quality enlistees but still meet personnel requirements. He argued that since those with high aptitude scores performed statistically better than those with low aptitude scores, the higher standards for women were not being used as a means of limiting the number of women in the Army but rather to distinguish, among female applicants, those best qualified to serve in the available positions [Batts, 1975]. One common fault though is linking test scores with trainability rather than using them as ultimate predictors of job performance. This is not a problem peculiar to women but it does highlight the need for enlistment and selection standards to be linked to job performance requirements. Under the Bona Fide Occupational Qualification exception to Title VII of the Civil Rights Act (discussed in Chapter II), the Army is legally justified in maintaining different female enlistment standards if they are based on demonstrable differences in sexual characteristics.

The elimination of present restrictive selection standards applying specifically to women would most likely bring the female selection rate from 46.0% up to the current male rate of 61.7%. This would increase the projected female accessions for 1985 from 7,000 to 9,000 [Defense Manpower Commission Staff Studies, 1976].

b. Annual Recruiting Requirement

In determining the total number of women the Army can optimally utilize, policy planners recognize the Army's primary mission is combat and that at this time the nation does not support the use of women in direct combat roles. The maximum number of women the Army can absorb, without affecting the ability to accomplish its mission, is determined by a quantitative Women's Enlisted Expansion Model (WEEM). In order to support this quantitative program for women in the Army a parametric model was developed capable of determining non-prior service accession requirements. Both of these models are discussed under Force Models in Chapter II.

The accessions goals of the Services have always been met because of a surplus of qualified applicants. But the actual number of accessions varies among the different Armed Services and also within each Service from year to year. "Programmed accessions have also been changed during a fiscal year in response to overall strength changes, shortfalls in male accession recruiting, changes in required specialty backgrounds, etc." [Defense Manpower Commission Staff Studies, 1976]. However the development of these models will help stabilize fluctuations in planned NPS accessions. The planned

FY 1976 Army program is for 17,200 accessions of non-prior service enlisted women representing 9.2% of total accessions [Defense Manpower Commission Staff Studies, 1976].

2. Career Progression and Promotion

a. Enlisted personnel

Women are treated equally with the men in the Army in terms of career opportunities. It was seen in the Parametric Approach in Chapter II that every consideration was given to providing women with sufficient positions by rank to ensure equal promotion opportunity. The sex of the soldier is not one of the vital considerations in a promotion decision. One hindrance to the provision of equal opportunity is the possibility of biased commanders' attitudes being reflected in adverse performance evaluation reports on the women. There is no statistical evidence to indicate this is occurring, but bearing in mind the attitudes of various segments of the military population discussed earlier, it is better for military managers to recognize a potential problem area before it becomes obvious.

The WEEM, also discussed in Chapter II, ensures normal career progression for females in each MOS. This is achieved by computing a rank space ratio for each rank level. To ensure that male soldiers are not disadvantaged by a sudden increase in the number of women authorized in an MOS, the WEEM calculates a combat ratio which provides the combat promotion requirement. Essentially the WEEM considers the male and female promotion opportunities in its calculations and any MOS in which women cannot be afforded a viable career is

temporarily closed to them. A discussion of MOS's closed to women is contained later in this chapter.

However some women consider they are at a disadvantage with regards to promotion, since enlisted MOS tests are based (they say) on the assumption that the soldier - particularly those in higher grades - is familiar with tactical operations [Mann, 1975]. Yet all the courses of instruction (except the combat arms) formerly closed to women are now open. This includes NCO academies and Drill Sergeants School. The Army also changed its policy to permit women to command men, except for combat units. Along with the assignment of men to the traditional female military installation, these changes in policies have helped to improve equal career opportunities for women.

b. Officers

Promotion qualifications are the same for males and females, however, female officers are considered on a separate list for permanent promotion. For consideration of temporary (AUS) promotion male and female officers are on an integrated list. However this will change with the eventual enactment of the Defense Officer Personnel Management Act (DOPMA). This proposed legislation provides substantially similar personnel statistics and career progression opportunity for all active duty officers below general and flag rank. With respect to women, significant changes have been incorporated to the effect that basic provisions relating to appointment, promotion, responsibility, and retirement will apply equally to both male and female officers. DOPMA was not passed in

the 94th Congress and so will await further consideration by the 95th Congress (1977).

In the new Officer Personnel Management System (OPMS) currently being introduced into the Army, female officers will not be treated any differently from male officers. One of the objectives of OPMS is to develop officers in the correct numbers and with the correct skills to satisfy Army requirements, at the same time taking maximum advantage of the abilities, aptitudes and interests of the individual officer. This policy is indeed hopeful for female officers since it will recognize the virtually untapped available source they represent. To ensure this is achieved, the Army is using the concept of dual specialty development. Under this officer professional development system, the objective is for each officer to gain and maintain proficiency in a primary and a secondary (or alternate) specialty. Women will not be treated separately under this system but will be integrated with the men. In keeping with policies on combat restrictions however, some skill specialties will be closed to women and these are discussed later in this chapter under Assignment.

Female officers became eligible to attend the senior service colleges (e.g., the Army War College) in 1968 and now women can be selected for attendance at Command and General Staff Colleges. PL 90-130, as mentioned earlier, removed the restriction on women's ability to achieve general officer rank. The same criteria for the selection for command position is now used for male and female officers but women are ineligible for command of combat units. WAC officers

are now able to fully participate as members of school selection and temporary promotion boards and are not just restricted to the evaluation of women. The Women Officer Strength Model (WOSM), discussed in Chapter II, considers rotation equity and promotion equity in its calculations.

If the opportunity for various assignments by type and location, as well as the opportunity to be available for schooling such as officer career course, command and general staff college and senior service college is available by the operation of the rotation equity consideration and an equal statistical opportunity for promotion has been included, then an equal opportunity for professional development exists.

[U. S. Army, Women in the Army Study Group, 1976]

B. TRAINING

1. Basic

The purpose of the Army school system is to prepare individuals to perform tasks effectively in time of war or peace and approaches this using a training systems concept. The training process commences with Basic Entry Training (BET) where the aim is to convert the trainee from a civilian to a soldier. This is done by teaching discipline, esprit de corps, certain basic combat skills and by strengthening the individual both mentally and physically. Basic Combat Training (BCT) course of instruction currently provides the amount of training considered to be the minimum required for entry level male soldiers. Basic Training (BT) provides the minimum required training for entry level female soldiers and differs slightly from BCT. However, the U. S. Army, Women in the Army Study Group [1976] states that the ultimate goal is to

train female soldiers to equal proficiency in the same skill level as their male counterparts. Both the BCT and BT programs currently involve approximately 320 hours of formal instruction in the following categories: School of the Soldier; Physical Training; Weapons Training; Tactical Training; and Performance Testing and Evaluation. Differences between BCT and BT exist in the areas of weapons and tactical training. Men receive approximately 143 hours of rifle marksmanship, other weapons training, and offensive and defensive tactics. But women receive approximately 72 hours of rifle marksmanship and defensive field orientation training.

Weapons familiarization was included in BT in 1974 and even though firing was on a voluntary basis, approximately 85% of WAC participated in weapons firing. With effect from 1 July 1975, defensive weapons qualifications training was made mandatory. On 9 January 1976 the Army announced a revised weapons training policy for female soldiers:

Henceforth, all enlisted soldiers, male and female, will be required to qualify with the individual weapon appropriate to their MOS/branch/unit authorization in accordance with the appropriate training program - soldiers requiring basic rifle marksmanship (BRM) training will be required to qualify with the Army standard rifle in accordance with the standard BRM program.

[Office of the Director, WAC, 1976]

As part of a TRADOC effort to upgrade the quality of Army weapons training, M60 Machine Gun training began on 10 March 1976 as a test program for WAC basic trainees at the U. S. Women's Army Corps Center and School (USWACCS), Fort McClellan. The M60 is also a defensive weapon and as

such is very common to a combat service support unit. One of the more valuable phases of M60 familiarization is the "crack and thump" exercise where trainees are taught how to tell the direction of enemy fire.

Often unit commanders criticize the women for lack of knowledge on living in the field. But an examination of BT instruction reveals that the women are actually given field training. It includes forced marching, set up of bivouac areas, self protection in defensive areas, night marching, field hygiene and sanitation, first aid and instruction on nuclear, biological and chemical (NBC) warfare.

During BT there is heavy emphasis on physical training. Generally, the women have not been exposed to the amount of physical training exercises in which the men have participated in their high school years. The Basic Physical Fitness Test requires the trainee to perform a shuttle run; a run, dodge and jump; modified pushups and situps (as approved by the Surgeon General); and a half mile run. Two of these, the shuttle run, and run, dodge and jump, are timed events designed to measure explosive power, coordination and agility. It should be noted that both of these measure explosive power, and it was seen in Chapter II that a woman's physiological nature restricts her ability to perform well in this exercise relative to the men.

Currently BT is conducted at the WAC Center and School at Fort McClellan, Alabama and at Fort Jackson, South Carolina. At Fort McClellan there is an integrated instructional staff but only female enlistees are trained. Fort Jackson is also

a BCT center for male enlistees and it is believed that this provides a better training atmosphere for the female enlistees. They feel they are getting almost the same training as the men. Although there are no differences in the BT syllabuses followed at each location, there must be subconscious differences in the attitudes of the instructors in each location. At Fort Jackson an integrated committee of instructors responsible for one aspect of training never knows from day to day the mix of male and female companies it will instruct and this must surely develop equal standards for instruction. Compare this situation at Fort Jackson with Fort McClellan, where the integrated committee of instructors knows that it will be training only female companies. The instructors at Fort McClellan do not have the same opportunity for continual reinforcement of equal standards but must rely on past experience (i.e., memory) to ensure equal standards. It is considered there are definite advantages to be gained from an integrated training environment. The actual companies at Fort Jackson are not integrated, but this further step towards equality in training could take advantage of the competitive nature of men and women.

In September 1975 TRADOC began development of a general core BCT/BT program of instruction (POI) in order to achieve an optimal entry level of training for male and female enlistees. This new POI contains offensive and defensive tactical training and weapons training currently limited to BCT. A field test of the Basic Initial Entry Training (BIET) program will be conducted at Fort Jackson during the period September -

December 1976. With female soldiers taking expanded roles in the Army it becomes mandatory that they receive identical or essentially similar entry level training. Consequently the BCT program will be used as the test vehicle, with approximately 880 men and 880 women as the test population. Trainees will be segregated into four female companies and four male companies where identical training and evaluation will be given to each company. The training cadre will be balanced in terms of education, sex, length of service, experience and grade, with these proportions being maintained amongst all test companies.

The three objectives of the test are:

- a. To measure the qualitative performance of men and women against the BIET program.
- b. To compare the performance levels achieved by men and women soldiers.
- c. To identify the need for modifications, if any, to the BIET Program.

[U. S. Army, Women in the Army Study Group, 1976]

Women can expect significant changes in the areas of physical training, field or tactics training and weapons training. In physical training the confidence and obstacle courses will be added. This includes road marches of up to 15 miles and the Basic Physical Fitness Test (BPFT). In field training they will learn individual tactical techniques as well as how to set up a defensive fighting position. In weapons training they will fire the regular basic rifle marksmanship course, throw live hand grenades and go through a live fire and maneuver course. The program will conclude with the

women taking the regular end of cycle test. Essentially the women are being subjected to the same BCT program as men and their performances will be closely scrutinized. The test report is not expected to be completed until April 1977.

2. Advanced

Generally, training and courses of instruction for which women are eligible have been integrated. The new Enlisted Personnel Management System (EPMS) for the Army provides the basis for logical career progression through the integration of enlisted training evaluation, classification and promotion into a single well-coordinated system. Five plateaus (skill levels) of training have been established and the soldier must qualify at the next highest skill level before being eligible for promotion to a higher rank. The first level of training is the Basic Combat Training/Advanced Individual Training (BCT/AIT) which provides the soldier with a sound professional basis for performance in his first unit. The systems approach to training studies each MOS to identify critical tasks performed by incumbents and then training is constrained to those critical tasks. Hence there is assurance in this system that the training received is oriented to actual job performance tasks.

Following basic training, the women move on to a school for AIT or to an installation to receive on-the-job training. Not only may women be trained in all MOS's, except combat and tactical combat support (see the section on Assignment for a detailed discussion of MOS's currently closed to women), but they will receive their AIT along with their male counterparts.

When an enlisted woman has completed her initial MOS training she is assigned to a position according to her qualifications and enlistment guarantees. An analysis of women's participation in functional training programs (e.g., airborne, Ranger, cold weather, etc.) was conducted as part of studies into the admission of women to West Point. Participation by women in airborne, flight, jungle warfare, and mountain cold weather training is considered consistent with their potential to receive combat support and combat service support MOS assignments. But female participation in Ranger training would be inconsistent with the restrictions on their eligibility for combat assignments. Apart from this restriction women have the same opportunities for advanced training as the men.

3. Officers

"The Army goal is for women officers to have the same background and training as their male contemporaries so that they may serve effectively and competitively with their peers." [U. S. Army, Women in the Army Study Group, 1976]. In pursuit of this goal the Army has:

- a. Initiated a policy to ensure women Reserve Officer's Training Corps (ROTC) cadets and officer candidates receive the same training as their male counterparts.
- b. Discontinued the separate WAC Officer Orientation Course/Officer Candidate Course.
- c. Opened the United States Military Academy (USMA), West Point to female cadets.
- d. Revised Army weapons training policy and now requires WAC officers, ROTC/USMA cadets, and officer candidates to participate in individual weapons training on the same basis as their male counterparts.

The Women's Army Corps is being terminated as a separate agency, which means male and female officers will be accessioned through the same programs - ROTC, USMA and Officer Candidate School (OCS). In 1973 women were permitted to enter ROTC, with the first group of female cadets attending ROTC advanced summer camp in 1975. During that summer camp women received training in much the same manner as men except that their living quarters were segregated and they received some 54 hours of separate and different training (spread over the total six-week period). But for the summer camp of 1976 the policy was changed and the women received the same training as the men. In October 1976 the Officer Candidate School at Fort Benning, Georgia, was integrated, with men and women receiving the same training except for variations required by physiological differences. The first integrated class at OCS has 12 women and 208 men who will undergo the same fourteen week course, graduating in March 1977. The men and women OCS cadets live in the same barracks but the women occupy a separate wing.

On 7 October 1975 President Ford signed into law the bill which admits women to national service academies and in July 1976, 119 women and 1,366 men entered the U. S. Military Academy to become members of the graduating class of 1980. This legislation began a new era for West Point, since for over 173 years it had been an undergraduate academy for men. The sense of tradition at West Point is very strong and adjustment to the break in this all-male tradition will take time. The main argument against the admission of women to the service

academies has been that the academies' primary missions are to train combat officers. It was argued that since women cannot be assigned to a combat role it was not necessary nor logical to grant them admission. But this argument has been negated by the fact that male academy graduates are currently assigned to branches to which women are detailed. The USMA class of 1973 had 109 graduates (yearly graduations approximate 800) assigned to branches in which women are eligible to serve [Beans, 1975]. The strength of the all-male tradition is aptly illustrated by the fact that Lt. Gen. S. B. Berry (Superintendent of the USMA) considered resigning after it was decided to admit women to West Point [Monterey Peninsula Herald, November 1976].

Prior to women actually entering USMA it was necessary to determine what changes should be made to the curriculum, military training, barracks, regulations, etc. It is pleasing to find that very few changes were necessary. Over the past fifteen years the USMA has been adjusting the academic curriculum to ensure that its graduates receive a balanced education. In 1959, 56% of the curriculum was devoted to Mathematics, Science and Engineering and the remaining 44% to Social Sciences and Humanities with no electives. By 1965 the curriculum comprised 48% Mathematics, Science and Engineering, 44% Social Sciences and Humanities and 8% for electives. In 1973 the composition was 39% Mathematics, Science and Engineering, 44% Social Sciences and Humanities and 17% electives [USMA, 1973]. Today, the academic program consists of a core curriculum supplemented by areas of elective concentration. The core

curriculum provides a sound educational foundation across the academic spectrum - Mathematics, Science, Engineering, English, History, Social Sciences, National Security, and Psychology. The elective program allows a cadet to achieve a reasonable degree of subject concentration by choosing electives from one of the four broad areas of Basic Sciences, Applied Sciences and Engineering, Humanities, and National Security and Public Affairs. Each cadet graduates with a Bachelor of Science degree and with such flexibility already included in the curriculum no changes were necessary to incorporate the women. Both women and men are required to take the same 41 core courses and they are free to choose electives from any of the concentration areas. The broad content of the academic curriculum is contained in Appendix D.

The organization and billeting plans permit maximum integration throughout the Corps of Cadets. During the initial summer Cadet Basic Training phase the women are integrated so that there are approximately two or three to a squad. During the regular academic year the women have been assigned to the first company of each of the twelve battalions in the Corps of Cadets. The women are billeted in rooms relatively close to the women's bathrooms. In the barracks, latrines were modified and shower curtains installed (which the girls subsequently removed). In the gymnasium, additions included a locker room for women officials and instructors and a multi-purpose room for women cadets. So there have been very few changes to buildings and facilities.

"The philosophy of the military training program is that women cadets will not be excluded from any phase of the program and that deviations from standards will be permitted only when necessitated by inherent physiological differences." [Berry, 1976]. To determine which areas in the military and physical training programs were likely to cause difficulties for the women, Project 60 (discussed in Chapter II) and 60A were conducted from January to May 1976. Project 60A was an extension of Project 60 and focussed on particular segments of the training where it was expected physiological differences would have greatest impact. It included testing of such skills as right shoulder arms and inspection arms with the M14 rifle; a dummy grenade throw for distance; bayonet drill; M16 rifle, M60 machine gun, and .45 calibre pistol firing; and a 12.5 mile foot march. The results indicated that a slight modification of the M14 rifle for inspection arms (shortened spring) and use of the M16 rifle for bayonet practice would be the only necessary changes. [U. S. Army, Women in the Army Study Group, 1976]. Male cadets still train with the M14 rifle though the main authorized personal weapon in the U. S. Army is the M16 rifle. Tradition is a major factor in retention of the M14 rifle, for example the U. S. Marine Corps still retains the M14 rifle for use in ceremonial drill occasions. Equal cadet training was most evident during the final day of summer Cadet Basic Training where women were observed to be participating enthusiastically alongside the men in land navigation, bayonet drill, rifle assembly and disassembly, squad battle drill, grenade throwing practice and rifle drill.

The most remarkable performance by the women was on the bayonet assault course which would cure any male's preconceived attitudes about sex-role stereotypes.

As far as the physical education program is concerned, the women will take basic and advanced self-defense courses in lieu of boxing and wrestling. They will not engage in certain physical contact sports such as football, boxing and wrestling. The women will be evaluated on a different physical fitness scale taking physiological differences into consideration.

To ensure the women are assimilated quickly into this traditional male bastion, the Office of Military Leadership has conducted many seminars and education programs for all staff and instructors, male cadets and the new plebes. Some second classmen were selected to visit Fort McClellan and Fort Jackson and observe women in physical, field and weapons training. They, in turn, provided company briefings on their observations and experiences. During the June 1976 leave period some first class cadets voluntarily spent two weeks at Fort McClellan working with women in basic training. A continuing study (Project Athena) is being conducted at West Point to gather objective data on the reactions of cadets and the institution to women entering the USMA. The study will also provide useful corrective information to ensure continual refinement of plans and programs for optimal training of all cadets at the USMA.

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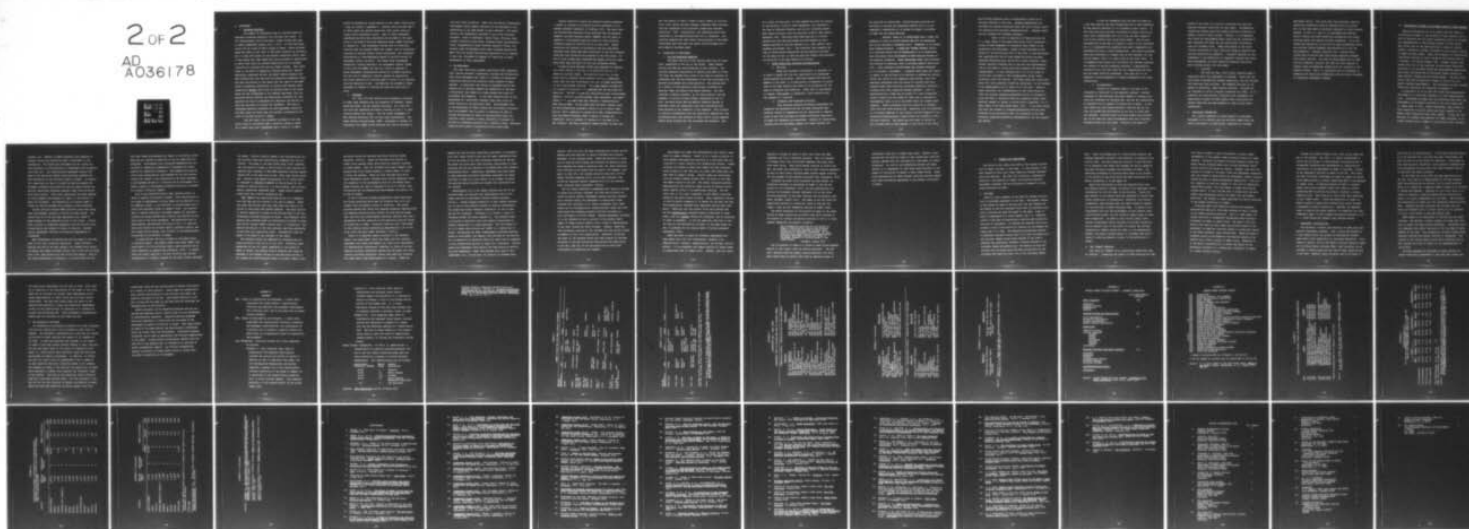
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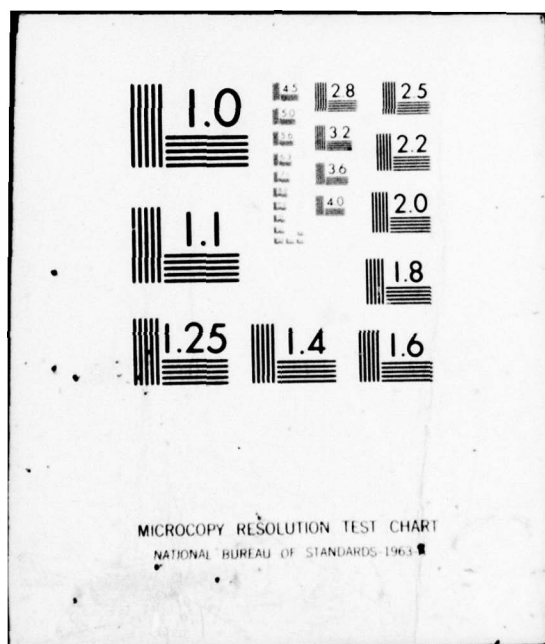
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C. ASSIGNMENT

1. Enlisted Personnel

The number of occupations open to enlisted women has undergone increased expansion over the past five years. In 1971 approximately 39% of the Army's career fields were open to women [Commanders Digest 13(30), 1973]. In 1976 Army Regulation 611-201 lists 35 MOS's closed to women. Hence enlisted women may serve in 403 (92%) of the Army inventory of 438 MOS's. But in a May 1976 report by the General Accounting Office (GAO), it was stated that some women were being assigned to specialties in which they could not perform effectively due to strength limitations or because the job was combat related. They found women in the MOS's of Ammunition Storage Specialist, Medical Specialist (ambulance driver) and Wheel Vehicle Mechanic had more difficulties than men with the physically demanding tasks. But what was obvious in the report was that some of the women weren't performing effectively in certain jobs because their supervisors thought they could not perform some of the tasks. Hence the GAO recommended to the Defense Department that the services develop physical and operational standards for each specialty as well as procedures for measuring the ability of both men and women to satisfy the standards. The Army is developing physical standards for each employment specialty and when these are known they will become a prerequisite for entry to the MOS by male or female.

The GAO report also prompted the Women in the Army Study Group to re-evaluate MOS's currently closed to women. As a result they have recommended that a total of 31 MOS's

should be permanently closed because of the combat restrictions - they are listed in Appendix E. However there are some MOS's in which women may perform duties but they cannot achieve a viable and/or manageable career. Many of these management considerations have been identified and included in the operation of the Women's Enlisted Expansion Model (WEEM) discussed in Chapter II. Such parameters include lack of sufficient rotation base for minimum CONUS tour length; lack of sufficient structure to provide normal career progression; and inadequate distribution of interchangeable spaces to provide variety of assignment within the skill. The Study Group recommended temporarily closing some MOS's for management reasons (based on the June 1976 WEEM) and they are listed in Appendix F. These management considerations should be reviewed regularly and the list of temporary closures updated as appropriate. The actual detailing of enlisted women to units is not separate from the detailing of men. The WEEM and the parametric model discussed in Chapter II provide the basis for detailing to units.

2. Officers

On 1 July 1974 WAC officers were permanently detailed to other Army branches with the exception of Infantry, Armour, Field Artillery, and Air Defense Artillery. On 4 June 1974 the first WAC completed helicopter training at the U. S. Army Aviation Center, Fort Rucker. Now the career management of WAC officers parallels that of their male counterparts. The Women Officer Strength Model (WOSM - discussed in Chapter II) determines the number of WAC officers that can be included in

the total force structure. Under the new Officer Professional Development policy female officers will be developed in two specialties in the same manner as male officers. The female officers are permanently detailed to one of the following branches: Corps of Engineers, Signal Corps, Military Intelligence, Military Police Corps, Ordnance Corps, Quartermaster Corps, Transportation Corps, Adjutant General's Corps, and Finance Corps and managed within their assigned specialties. Apart from the combat restrictions applicable to all females in the Army (discussed in Chapter II) there are no other differences in their assignment.

D. RE-ENLISTMENT

The legal and policy changes concerning career opportunities, service benefits, promotions, marriage and children are such recent phenomena that there is a paucity of statistics concerning attrition and retention rates related to these changes. In particular the change in pregnancy policy has removed one of the main reasons for separation in the past. A distinction also needs to be made between the terms re-enlistment and retention. In the Army retention rate is the percentage of a particular accession year group still on active service at any particular date. Re-enlistment rate is the percentage of those eligible who do actually re-enlist. The re-enlistment rate is useful in obtaining an idea of current fluctuations in force at any particular time, but retention rates provide a better indication of success (or failure) of personnel policies over a period of time. Retention rates are more useful in predicting future force size.

General Electric's Center for Advanced Studies presented a report on turnover of enlisted military personnel to the Defense Manpower Commission in February 1976. The basic data was derived from personnel files obtained from the Manpower Research and Data Analysis Center (MARDAC) and the table in Appendix G illustrates attrition rates for total military accession groups FY 1971-1974 as of 30 June 1974. Female attritions for reasons of involuntary loss and unsuitable behaviour were worse than male attritions in the 1971 accession group but this situation had reversed in the 1974 group. As far as total losses were concerned the female attrition rates were lower than the male's in all four accession groups.

A study by Plog and Kahn [1974] was conducted to identify the likely causes of failure to re-enlist on the part of effective enlisted women. The specific objectives of the study were to identify their benefits and major complaints about Army life and to determine how each of these contribute to the re-enlistment decision. The study sample included 36% who planned to re-enlist, 17% undecided and 47% who would not re-enlist. The main reasons for re-enlisting were re-enlistment benefits; satisfaction with present work assignment; and opportunity to change one's MOS (may indicate a dissatisfaction with current MOS). On the other hand the major reasons cited for not re-enlisting included a desire to go to school under the G.I. bill; inability to change one's MOS; dissatisfaction with the Modern Volunteer Army; a desire to escape the "hassling"; and an interest in "seeing if I can make it on the outside." The most frequently chosen benefit of Army life

was "the chance to learn a trade or skill useful in civilian life" (63%) whilst the most frequent complaint about military life was inadequate living quarters. (especially bathroom facilities - 39%). Surprisingly, the complaints about work conditions or job opportunities were low in frequency. One striking response was that almost three-quarters of the women interviewed felt that both the public and servicemen have a poor image of enlisted women.

E. CONDITIONS OF EMPLOYMENT

1. Pay and Financial Benefits

The Equal Pay Act of 1963 ensured equal pay for equal work, regardless of the sex of the worker. Today females receive the same pay and allowances as male soldiers. But the most expansive application of equality was made on 14 May 1973 when the Supreme Court ruled in the case of Frontiero vs Richardson that the sex differences in pay and entitlement for married servicewomen were discriminatory. The changes made as a result of this decision involve basic allowance for quarters (BAQ) and medical and dental benefits. The case involved Lt Sharon Frontiero, an Air Force Officer, and her husband, a civilian college student subsidized by the G.I. bill, who were denied BAQ and medical benefits because Lt Frontiero could not demonstrate that she contributed more than one-half of her husband's living expenses. Male soldiers in similar circumstances were not required to demonstrate they contributed more than one-half of their wife's living expenses before being eligible for the allowances and benefits. Now,

as a result of this case, if both husband and wife are serving in the military, claim no other dependents, are assigned to the same or adjacent stations, and are not allocated government family quarters, each are entitled to BAQ at the without dependent rate. Similarly Army women married to civilian spouses have the same privileges and entitlements as male members married to civilian spouses (e.g., BAQ, medical care, exchange privileges, etc.). The Frontiero case prompted the Army to review those regulations varying benefits received on the basis of sex, so that now male and female Army personnel are entitled to the same benefits of service.

2. Other Conditions, Policies and Regulations

a. Marriage

Women who enlisted, re-enlisted, or extended, on or after 1 August 1973 are not authorized to be discharged solely because of marriage. When both husband and wife are members of the Army, it is Army policy to endeavour to assign them to the same location but there is no obligation for the Army to guarantee joint domicile. Women have no entitlement to request reassignment to establish a joint domicile when the husband is a civilian.

b. Pregnancy and Parenthood Policies

Past policies required involuntary separation for pregnancy and parenthood but now the Army recognizes that problems related to dependents are not restricted to females. Since 28 May 1975 the Army has ceased involuntary separation of women for pregnancy and parenthood. Parents of illegitimate children who are furnishing support for these children are

now entitled to receive BAQ. Family-planning services are available to married and unmarried soldiers and it is the commander's responsibility to ensure no stigma is attached to women who use these services.

However, where it is established that a woman was pregnant on entry to active service she will be discharged and is not entitled to maternity care. Pregnancy is an enlistment disqualification. A woman who becomes pregnant whilst in a training status will be discharged if it is determined that she cannot fully participate in MOS training because of her physical condition. Women discharged under this provision are entitled to maternity care in military medical facilities only. Other pregnant enlisted women may request discharge or, if eligible, retirement. A pregnant Army woman who elects to remain in the military will continue to perform her duties, within the limits of any temporary restrictions, until her physician determines that she should be excused from duty. Pregnant women wear privately purchased commercial maternity clothing once their condition becomes apparent. Prior to hospitalization a woman may be placed in a sick-in-quarters status (usually for four weeks or less) and is entitled to convalescent leave of up to six weeks after her release from hospital. Other provisions allow for granting of ordinary leave and even leave without pay. Maternity care is authorized at a military hospital or the nearest civilian hospital if no Obstetrical/Gynaecological capabilities are available at the military hospital. The woman may also elect to return to her recorded home at Army expense to give birth to the child

and civilian maternity care is authorized if there is no military facility in the area. Hardship separations are available to resolve situations where the care of minor children conflicts with military responsibilities. Pregnant women are not eligible for overseas assignment.

After a year of operation of these policies the U. S. Army, Women in the Army Study Group [1976] conducted a survey of Army commanders to determine their effect on deployability and efficiency. Based on data provided by this survey for the period June 1975 to May 1976, it was discovered that approximately 40% of those women delivering children requested discharge after the birth or after postnatal leave. Further analysis revealed that at any one time approximately 3.8% of the women on active duty were pregnant and therefore nondeployable. It also revealed that 1.4% of the women on active duty (included in this nondeployable group) would ultimately leave the service. The Study Group calculated that every full term pregnancy caused the individual, on the average, to be nondeployable for at least 71% of the year. Based on these statistics the recommendation of the Study Group was "that the current pregnancy/parenthood policy be reversed to allow the Army to discharge women for pregnancy unless their specific request to remain on active duty is approved." [U. S. Army, Women in the Army Study Group, 1976]. It is worth noting that when the changes in pregnancy/parenthood policies were directed to the Services by DOD, the Secretary of the Army initially requested postponing implementation, but the request was denied.

It must be remembered that the need for women as a new Army resource has been established and to take advantage of this quality workforce it is necessary to pay a price. In this case the price has been calculated as being 0.24% of the total force nondeployable for 71% of any one year (based on 6.3% of the current total force being women). Data on non-deployability of men due to illness or injury is not available, but it is suggested that pregnancy may have a comparable non-deployability rate to other incapacities. The survey discussed above was conducted on a sample size of 355 officers (131 men and 224 women), which is a mere 0.04% of the total force. It is suggested that before any conclusions are reached regarding the effects of current pregnancy policies, a comprehensive analysis of all lost duty time for all incapacities for both men and women should be conducted. Only then will it be possible to place pregnancy in correct perspective with other incapacities.

c. Accommodation

Housing for bachelor women in the Army is not considered a constraint on the expansion program. Minimum standards for WAC barracks have been changed to closely coincide with standards for enlisted men, and any new construction of barracks will be capable of housing men or women. In the past women have been housed separately from the men but now they are housed and administered by the unit to which they are assigned. Enlisted women are being housed with enlisted men of the same unit under arrangements that still maintain maximum privacy for both sexes. Generally the women are

housed on one floor or a wing of a building and there are separate bathroom facilities for both sexes. Accommodation occupied by females must have window coverings consisting of shades, blinds or draw curtains. However, it is suggested that these are improvements which could also be installed in men's barracks and under the new construction regulations this will probably occur. Women participate in the field training activities of their units and sleeping quarters and latrine facilities are separate. A sensible approach by unit commanders to the definition of "separate" ensures that workable arrangements are made concerning separate facilities which provide privacy for both sexes.

d. Uniforms

The Plog and Kahn [1974] survey reported women's complaints about the inadequacy of uniforms. Since then the Army woman's wardrobe has changed extensively, and now includes more easy-care type uniforms. The emphasis has been on the design of functional, smart-looking uniforms. Fatigues are now included in initial clothing allowances for women. It is essential for good military discipline that commanders and supervisors be aware of exact female dress regulations and enforce them with the same emphasis as they do male dress regulations.

F. SPECIALIST PROFESSIONS

One possible approach to ensure equality in personnel management is to recruit from the available supply pool and assign individuals to every branch regardless of ultimate

employment skills. This would mean that personnel entering specialist professions would be assigned from the trained pool on the same basis as personnel assigned to other branches. However, in the U. S. Army it is considered that Medical, Dental, Nursing and other specialist professions are unique entities within the overall military profession. It is contended that motivation to join one of these professions within the military differs somewhat from motivation to join the Army generally. Doctors, dentists, etc., provide such a unique kind of service that they warrant separate treatment from normal recruits. Not only do these people have to meet military selection criteria, but they are also required to display unique professional capabilities not required of the regular soldier. The U. S. Army would gain no advantage in combining the specialist professions with the regular branches for personnel management purposes.

IV. UTILIZATION OF WOMEN IN THE ARMED FORCES OF OTHER NATIONS

Definite advantages are to be gained from the study of utilization of women in the military of other nations, but it must be realized that not every utilization policy is suitable for implementation in the military forces of every nation. Each nation has its own peculiarities in terms of culture, history, stability, economy, attitudes to the military, status of women and many others. Hence the inclusion of international utilization policies in such a study as this serves only as a contrast - to provide another view. Goldman [August 1974] states that "all of the countries in which women constitute more than 3% of the armed forces are parliamentary democracies which have instituted the all-volunteer system (Australia, Great Britain, Canada and the United States). The only other nation with high utilization of women is Israel with its special defense requirements." The statistics on which Goldman bases this conclusion are contained in Appendix H.

In Australia, as at 30 June 1975 there were approximately 1500 women in a total Army strength of 31,600 (approximately 4.8%). Enlistment of women into the Australian Army after the disbandment of the Women's Services at the end of World War II, began again in 1951. Similar employment restrictions to those operative in the war years were again imposed on the Women's Royal Australian Army Corps (WRAAC). In May 1967 the Minister for Defence gave approval for WRAAC personnel to be posted overseas with a number of limitations on age, parental

consent, etc. However no WRAAC personnel were employed in Vietnam, during the Australian Army's involvement in the Vietnam war. The Australian Government did not ratify the 1954 Convention on Discrimination in Employment and Occupation until May 1974. The Prime Minister expressed concern that some of the Australian Defence Force policies breached the 1955 Convention on the Political Rights of Women. In particular, women were not able to attend the Service Academy and Colleges, different pay scales for men and women existed and service regulations prevented pregnant women from continuing with their careers. Since then regulations have been amended to allow pregnant servicewomen to remain in the service or apply for discharge. The possibility of allowing women to attend the Service Academy and Colleges is being examined.

Current policies exclude WRAAC personnel from areas where they could become involved in actions by enemy forces. Currently only 26 of the 282 Army employments are closed to women because of the combatant nature of the duties. Initial basic training is conducted separately from the men, and lasts 5 weeks whilst men undergo 10 weeks of training. However, initial employment training in authorized employments is integrated.

Most differences in policies for men and women in the Army exist in the area of service conditions. Female officers receive only 80% of the male general list command scale salary and whilst the female enlisted receive 100% of the male enlisted skill rate, they receive only 80% of the rank margin. Most of the other differences in conditions of service stem from the

fact that those servicewomen who remain in the service after marriage are treated as unmarried as far as conditions are concerned. Servicewomen with recognized dependents are not entitled to temporary accommodation allowances and cannot qualify for Separation Allowance. Male members may have de facto wives recognized but servicewomen do not have similar rights with regard to the recognition of de facto husbands. A servicewoman married to a civilian has no entitlement to a family removal or Disturbance Allowance since she is classed as a single "living-in" member.

Size is the Australian Army's most limiting factor in terms of greater utilization of women. With restrictions on the types of employments in which women can be employed (i.e., no combatant roles), it is difficult to provide women with a viable and equitable career in support roles. The requirement to reserve sufficient non-combat spaces for equitable rotation for males becomes more critical and limiting as the total size of the force decreases. The Australian Army is approximately one-twentieth the size of the U. S. Army and hence such factors as rotation equity, promotion equity, and tour length equity become very critical in the determination of policies on utilization of women.

In Great Britain the role of women in the armed forces is changing slowly. The Women's Royal Army Corps (WRAC) comprise about 2.4% of the British Army's total strength and no major expansion is planned [The Economist, 1976]. In recent years the Army's need for a variety of skills has widened, accompanied by a similar increase in the type of work available

for women. Britain recently passed a Sex Discrimination Act, but military women were specifically exempted from its provisions. The women in the Army Study Group [1976] examined the utilization of women in the military of many nations and reported that although in 1960 WRAC personnel received approximately 85% of the male rate of pay, today they receive equal pay. Britain's pay system incorporates an "X" factor which is designed to compensate members of the military for the rigours of service life (e.g., 24 hour working, poor environmental conditions, hazardous duty). Women receive approximately half the X factor received by men.

WRAC members are restricted from serving in a combatant role and they are not trained in the use of weapons. Women can leave the British Army when they marry but they are required to leave when they become pregnant. The major barrier to further expansion of women in the British Army is the discriminatory attitude displayed by males. The Economist [1976] reports that although women are theoretically allowed to enter most skills (except combat related ones), a "suitability" test applied arbitrarily to the jobs prevents them from performing in more than the traditional roles. "Suitability" does not appear to be based on any analysis of job tasks.

The Canadian Forces are comprised of volunteer men and women totalling 77,997 as at 31 July 1976. Following recommendations of the 1971 Royal Commission on the Status of Women in Canada, the Defence Council directed that women be employed in the Canadian Forces on the same basis as men in all trades and classifications except in primary combat roles,

sea-going duties and isolated positions [Director Women Personnel, 1976(a)]. Women are excluded from service in combat units because these units would be directly involved in armed combat. They are excluded from Combat Support units because they could become engaged in armed combat, at least in their own defence. Women are also excluded from units where dependents cannot accompany male service personnel (with the exception of the peacekeeping force in the Middle East). Women officers can thus be employed in 18 of 27 officer classifications and non-commissioned servicewomen can serve in 62 of the 99 trades.

In 1974 a National Defence Headquarters study identified the actual positions which must be filled by men to be consistent with the Defence Council's directive. The review process ensured that there were adequate promotion opportunities and adequate career/rotation factors for both men and women. Just over half the establishment positions required "men only" designation and the remaining 30,000 positions could be filled by either men or women. Currently there are over 3,550 women in the Canadian Forces representing approximately 4.5% of the total force [Director Women Personnel, 1976(a)].

There is no separate women's division in the Canadian Forces, and recruitment, basic and trade training, posting, employment and career development are (with minor adjustments for physiological differences) identical to those of the men. Physical strength differences between men and women are recognized by providing equivalent rather than identical training for women where these differences are a factor. Women may

command men and are given supervisory positions in accordance with rank. Women receive equal pay for equal responsibilities and are entitled to the same retirement benefits as the men. The women are given small arms training, participate in field exercises and are now serving in the Middle East with Canada's peacekeeping force. Operational commanders have been asked to make positions currently considered unsuitable for women available to them on a trial basis, in an attempt to ensure the policies being followed are neither too restrictive nor too liberal.

Approximately 15% of the female officers and 24% of the enlisted women are married with approximately 84% of this number married to servicemen [Director Women Personnel, 1976(b)]. Career managers endeavour to post couples together but if this is not possible because of service requirements, the couple may accept temporary separation, or one of them may opt for discharge. Pregnancy is no longer a cause for discharge unless the woman requests it. The pregnant woman is entitled to Maternity Leave and benefits established by Federal legislation for women employees. Her entitlement is up to 15 weeks Leave Without Pay (LWOP) or a combination of annual, accumulated and LWOP; unemployment insurance benefits, based on entitlement; and medical care provided by the service. But on completion of Maternity Leave the woman must be prepared to give unrestricted service or apply for a discharge. Servicewomen with dependents have exactly the same status as servicemen with dependents. These servicewomen still have a full commitment (e.g., to the unit, for posting or attached duty)

however, they are given the same consideration as male service members who have personal or family problems which warrant deferment of any proposed moves. These new policies on retention of married servicewomen and provision of Maternity Leave have improved the women's retention rate, but their attrition rate continues to be higher than the men's. For example, from April to July 1976, the average attrition rate was 9.3% for female officers compared with 6.7% for male officers, and 16.85% for enlisted females compared with 9.7% for enlisted males [Director Women Personnel, 1976(b)].

The 1971 Royal Commission recommended that women be allowed to attend the military colleges, but this was initially rejected by senior defence management because military colleges train officers mainly for employment in operational areas. Although this rationale is no longer considered valid (some cadets are in non-operational classifications) women are still restricted from attending Canadian Military Colleges on a full time basis as Officer Cadets. Defence management considers it is not feasible to have a portion of the present small number of female officer cadets (total intake of approximately 30 per year) attend the three colleges. However, women may take university training at the colleges but they do not attend as members of the cadet organization. Generally, by giving the women in the Canadian Forces the same program of training available to the men and having them perform the same duties as the men, they will be as well-qualified as their male counterparts to supervise and command.

Many people are under the misconception that Israeli women serve as combat soldiers. Israel is in a unique situation in that manpower shortages are occurring at a time when they are involved in a major conflict with neighbouring nations. Female soldiers did engage in front-line combat and flew reconnaissance missions in the 1948 war, but after 1958 women have only been used as support troops. Israeli women are conscripted into the Israeli Defence Forces (IDF) but serve in the CHEN, the Women's Corps of the IDF. The female conscripts perform administrative and technical tasks as well as service duties which require little or no specialized training. The IDF feels that it is a poor investment to give female conscripts extensive and hence costly training. Their compulsory service is only 20 months (compared to 36 months for the men) and they are automatically released from compulsory service when they marry. Women may join the regular force and although they are not automatically released because of marriage or pregnancy, they can request release for pregnancy, and for marriage if there is hardship. So the IDF takes the view that it cannot rely on the availability of women, to the same extent as men, in planning for its future needs of trained personnel [Dickerson, 1974].

Women may serve in about 80 different employments but they mostly fall into the "traditional" category (e.g., administrative, clerical, communications, car drivers, medical duties). It is acceptable and common practice to assign women to traditional jobs in combat units. However, they are always

assigned in groups of seven or more, have their own CHEN commander and live in separate quarters. They are assigned at brigade level (but the Brigade Commander may place them with lower units). When units become involved in direct combat, the women are evacuated to "save as many lives as possible." As part of their basic training women receive weapon training for the purpose of self defence and guard duty [Dickerson, 1974].

Although the exact force strengths are kept secret, an unofficial estimate of percentage of women in the IDF was placed at 5.0% [Dickerson, 1974], but the International Institute for Strategic Studies indicated 9.5% of the total military personnel of the Army (regulars and conscripts) were women [Goldman, August 1974]. The women in the IDF today are essentially serving in traditional roles to free men for combat - they are not themselves serving in combat roles.

The above discussion of utilization of women in the armed forces of other nations has provided views which contrast or are similar to various utilization policies in the U. S. Army. Goldman summarizes the present situation:

The contemporary patterns of utilization of women in the military reflect the shifting nature of military manpower systems under conditions of strategic deterrence. As the military move toward the all-volunteer system personnel shortages develop and there is increased pressure to utilize women in the armed forces.

[Goldman, August 1974]

The utilization of women in a nation's armed forces depends heavily on the overall need for quality personnel. The IDF has a definite need for combat trained personnel, but still sees itself able to fulfill this need by employing women in

traditional roles yet in combat type units. . However, other nations see the need for women in less traditional roles but further removed from the likelihood of involvement in combat situations. In view of the differences between and among nations it is impossible to rank order them according to the extent of utilization of women in their armed forces. These brief descriptions of other nations' policies provide readers with some contrasting approaches to the optimal utilization of women.

V. SUMMARY AND CONCLUSIONS

The focus of this thesis has been on the optimal utilization of women (and men) in the Army. In this section it has been reduced to four major areas requiring command consideration and decision. The need (for utilizing a substantial resource); the question of combat (utilization); specific management problems; and the attitudinal framework in which these decisions are made.

A. THE NEED

There is clear evidence of the need for optimal utilization of available personnel in the Army. The general change in the status of women in society over the last decade and the advent of the All Volunteer Force have led military planners to analyze the need for women in the Army. After 33 years of dependence on a draft system, the U. S. committed itself to the task of maintaining a quality Army consisting entirely of volunteers. To achieve the required force size without a drop in the quality of recruits is the problem now facing the U. S. Army. The population projections predict a declining available recruit pool of 18 year old males with the critical supply levels being reached in the 1980's. Although the predictions indicate a similar decline in the available female enlistment pool, the decline is more significant for the males since the Army enlists half of the available male pool but only 4.1% of the available female

pool. Under the assumptions of a rapid growth scenario the Defense Department projects a 20% shortfall of required force size by 1985. The most practical solution to this shortfall is to recognize that women also possess the skills needed by the Army and hence increase the enlistment of women. One additional advantage to enlisting more women is an increase in the quality of the force since the women enlisting are in Mental Categories I, II and upper III.

Apart from motivation to meet the required force size, the changing status of women in society is an additional factor influencing the role of women in the military. During the past decade, as the labour force has expanded to include ever larger proportions of professional, technical, and clerical occupations, there become fewer and fewer objective reasons for the exclusion of women from most jobs. In terms of job requirements and with the development of more liberal views toward working women, one can logically expect women to enter most occupations. As women in the civilian labour force develop occupational skills relevant to military operations, and as changes occur in the nature of warfare and military organization, women's skills are seen in a new perspective. However, one major limiting factor to increased Army utilization of this new resource (women) is the definition of combat.

B. THE "COMBAT" QUESTION

The issue of "combat" as an exclusionary definition must be resolved. Increasing the number of women entering the Army

will have an effect on male willingness to accept combat assignments if the present combat exclusion policy for women remains. Currently the Women's Enlisted Expansion Model and Women Officer Strength Model both include parameters which* ensure rotation and promotion equity. However, even with the current 6.3% women in the Army, there are employment categories that are closed to women purely for management reasons (rotation equity and lack of career progression opportunity). The critical question is what will happen as this list of temporarily closed MOS's grows? Will the number of women enlisting be limited again? Or will the men have to accept more and more combat type assignments whilst the women fill the support positions? The answers to these questions are really contained in the present definition of combat.

Providing women with identical training and promotion opportunities does give them some leverage to force a change in the combat exclusion policies. The U. S. Army bases its current policies on fundamental assumptions about society's acceptance of women in combat roles. The Army is the only service that does not have legal restrictions placed on the employment of women but currently adheres to guidelines similar to the other services' legal restrictions. There has been no extensive survey of attitudes of the American people to determine their views to women in combat roles. Meanwhile it is the Army's responsibility to inform the public of the decreasing relevance of a conventional conception of combat in a modern warfare setting.

Perhaps the Israeli Defence Force (IDF) policy holds the key to the problem. The 1945 U. S. Board, established to review the utilization of WAC personnel during World War II recommended abandoning any geographical or organizational limitations on the employment of women in the Army - similar to the employment policies of women in the IDF. This would not mean the direct involvement of women in combat but would allow women serving in current authorized MOS's to be employed in combat units. A detailed analysis of MOS's in present combat units would probably reveal that women in current authorized MOS's would not be directly involved in actual fighting roles. They would be in rear areas (but undeniably in the "combat zone"). Since the definition of combat in modern warfare is vague this revised policy would increase a commander's overall flexibility. Whatever the approach taken to resolve the combat question, its adoption will have tremendous impact on the ultimate utilization patterns in all U. S. Armed Forces and probably many foreign nations.

C. MANAGEMENT CONSIDERATIONS

The selection, training and direction of women pose some specific management problems. Once a nation has decided on a firm combat policy the process of determining ultimate female/male force composition is reasonably mechanical. With numerical models, such as the Women's Enlisted Expansion Model and the Women Officer Strength Model, many variables can be included to ensure women and men receive equal opportunities in the Army. However, these variables need to be based on

facts and not on misconceptions. If the best qualified person is to be selected for a job then the exact requirements for that job need to be the basis for selection. Since women do have some physical limitations, exact physical standards need to be determined for each skill and these standards applied to both male and female soldiers.

If the women are to be given the same opportunities as the men, they need to be administered by the same managers. Apart from maintaining an advisory role to staff personnel there is no reason for a separate women's branch to be retained to manage servicewomen. Similarly at unit level there is no reason to maintain a separate administrative section/cell/group to be solely responsible for the women. This prevents the assimilation of women into the integrated working environment. Separate barracks reinforce the attitude that the women are different and it is more logical for all soldiers of a unit to be housed in the same general area.

There appear to be advantages in training men and women together. Men develop a greater respect for women when they have to endure the same training hardships. Integrated training companies also foster team spirit with the women already members of the team. This cooperation is quite evident where advanced training and officer training is integrated. The results of the current Basic Initial Entry Training test at Fort Jackson will have an effect on the implementation of such policy.

Military managers are perturbed as women continue to choose traditional employments in the Army even though many

non-traditional employments are now open to them. This leads to an imbalance in the distribution of the women in the force. Women may be reluctant to pioneer these employments as the career opportunities in these fields have not been clearly established. The Army must ensure women are aware of the opportunities existing in these non-traditional employments as well as the ramifications of remaining in or choosing an already over-strengthened MOS. These management considerations depend upon the attitudes of both women and men.

D. THE PROBLEM OF ATTITUDES

An overwhelming consideration affecting all other variables, policies and regulations is the attitudes at every level of command. The successful implementation of policies for greater utilization of women requires the support of all members of the Army. To many male soldiers the increase in the number of women in the Army present certain threats to their position. For the serviceman there is the threat of competition from women in a traditionally male profession where men have been stereotyped as superior performers. In addition, an officer may feel his career could be jeopardized if he is required to make sensitive decisions concerning women in his command. The presence of women in the Army and the possibility of women being employed in combat units threaten the "machismo" image of the soldier. This may be the underlying factor affecting some men's attitudes towards women. But the attitudes of the men are not the only barriers to greater utilization of women. There are some Army women who are quite content with their

traditional roles and see the policies of greater utilization as a threat to their security. Other women are enthusiastic about greater participation in the military and resent the negative attitudes of the men. Such dissatisfaction on the part of both men and women in the Army does not encourage the implementation of new policies.

Before attitudes can be improved prejudices must be recognized and measures taken to ensure these are not manifested in discriminatory behaviour. Extensive education programs should be undertaken to inform both men and women of the advantages in greater utilization of women. Both sexes should be aware of the physiological and psychological differences which can affect their job performance. Integrated training situations can be used to demonstrate the military capabilities of the women. A good working relationship, whether with the same sex or the opposite sex, is founded on an attitude of mutual professional respect. Any service contemplating greater utilization of women should strive to ensure this attitude is shared by all its members.

APPENDIX A

GLOSSARY

TOE - Table of Organization and Equipment - A table which prescribed the normal mission, organizational structure and personnel and equipment requirements for a military unit, and is the basis for an authorization document.

TDA - Table of Distribution and Allowance - A table which prescribes the organizational structure, personnel and equipment authorizations, and requirements of a military unit to perform a specific mission for which there is no appropriate table of organization and equipment.

Unit Categories - Units are divided into three categories as follows:

Category I - Unit organized under table of organization and equipment whose mission includes the seizing and holding of ground in addition to that of destroying the enemy, and its corresponding headquarters and service companies, together with a unit whose mission includes destruction of the enemy in support of, or assistance to the ground gaining troops by fire, or other tactical support. Unit operates habitually in the forward portion of the active combat area.

Category II - Unit organized under table of organization and equipment whose mission includes support and assistance of a nontactical nature to Category I units in the forward active portion of the combat area. It is found habitually forward of the army rear boundary and is normally assigned to division, corps, or Army.

Category III - Unit organized under table of organization and equipment whose mission includes service and operations in support of a combat area and the operating agencies of a communication zone. The unit is found normally in the communication zone or along the lines of communication leading thereto, to include the continental United States

Mental Groups (Categories) - In the U. S. Armed Forces, a classification of entering enlisted personnel into one of the five mental categories based upon the score attained on a battery of written entrance examinations. The classifications are as follows:

Examinations Percentile (ASVAB)	Mental Group	General Description
93-99	I	Superior
65-92	II	Above Average
31-64	III	Average
10-30	IV	Below Average - Marginally Qualified
0-9	V	Not Qualified

Sources: Army Regulations 310-25, 15 March 1976.

Defense Manpower Commission Staff Studies and
Supporting Papers, Volume III, Military Recruitment
and Accessions and the Future of the All Volunteer
Force, U. S. Government Printing Office, Washington,
D. C., May 1976, p. A-6 4.

APPENDIX B

SUMMARY OF ADULT MALE AND FEMALE PHYSICAL DIFFERENCES

Physique Characteristic	Male	Favors	Female	Favors
Height*	Taller	greater lung volume, speed, power	Shorter	quick rotary
Weight*	20-25% heavier	throwing power	Lighter	
Muscle mass of total body weight (%)	51.5% (greater)	power, speed, strength	Less (39.9%)	
Body fat of total body weight (%)			Greater (23.7-31.0%)	buoyancy
Bone mass	Larger bones, more massive		Smaller, less massive	
Center of Gravity	.6% higher	rotary movement	.6% lower	balance
Pelvis	shallower, narrower, heavier	running speed	1/2" wider, rounder	lateral sway in running, injury production
Bi-iliac diameter (hips)	narrower	power production	Wider	stability, childbirth
Bi-acromium diameter (shoulders)	wider	weight support production	Narrower	flexibility

APPENDIX B (continued)

Physique Characteristic	Male	Favors	Female	Favors
Chest Girth	Greater	Thoracic cavity ventilation capacity	smaller	
Trunk length	Relatively shorter			lower center of gravity
Leg length	Relatively longer	Acceleration, speed, power, greater kicking velocity	relatively longer	agility
Elbow joint	Arms parallel from shoulders	leverage in throwing, supporting weight	Arms form an "X" from shoulder	

*According to the U. S. Public Health Service, the average 18 year old male is 70.2" tall and weighs 144.8 lbs. The average 18 year old female is 64.4" tall and weighs 126.2 lbs.

Source: Peterson, J. A., et al, Project 60: A Comparison of Two Types of Physical Training Programs on the Performances of 16-18 year old women. Summary Report, United States Military Academy, West Point, May 1976, Appendix A, pp. 119-120.

APPENDIX C

STEREOTYPE SEX - ROLE ITEMS

(RESPONSES FROM 74 COLLEGE MEN AND 80 COLLEGE WOMEN)

Competency Cluster: Masculine pole is more desirable

Feminine

Not at all aggressive
Not at all independent
Very emotional
Does not hide emotions at all
Very subjective
Very easily influenced
Very submissive
Dislikes math and science very much
Very excitable in a minor crisis
Very passive
Not at all competitive
Very illogical
Very home oriented
Not at all skilled in business
Very sneaky
Does not know the way of the world
Feelings easily hurt
Not at all adventurous
Has difficulty making decisions
Cries very easily
Almost never acts as a leader
Not at all self-confident

Masculine

Very aggressive
Very independent
Not at all emotional
Almost always hides emotions
Very objective
Not at all easily influenced
Very dominant
Likes math and science very much
Not at all excitable in a minor crisis
Very active
Very competitive
Very logical
Very worldly
Very skilled in business
Very direct
Knows the way of the world
Feelings not easily hurt
Very adventurous
Can make decisions easily
Never cries
Almost always acts as a leader
Very self-confident

APPENDIX C (continued)

<u>Feminine</u>	<u>Masculine</u>
Very uncomfortable about being aggressive	Not at all uncomfortable about being aggressive
Not at all ambitious	Very ambitious
Unable to separate feelings from ideas	Easily able to separate feelings from ideas
Very dependent	Not at all dependent
Very conceited about appearance	Never conceited about appearance
Thinks women are always superior to men	Thinks men are always superior to women
Does not talk about sex with men	Talks freely about sex with men

Warmth - Expressiveness Cluster: Feminine pole is more desirable

<u>Feminine</u>	<u>Masculine</u>
Doesn't use harsh language at all	Uses very harsh language
Very talkative	Not at all talkative
Very tactful	Very blunt
Very gentle	Very rough
Very aware of feelings of others	Not at all aware of feelings of others
Very religious	Not at all religious
Very interested in own appearance	Not at all interested in own appearance
Very neat in habits	Very sloppy in habits
Very quiet	Very loud
Very strong need for security	Very little need for security

APPENDIX C (continued)

Feminine

Enjoys arts and literature
Easily expresses tender
feelings

Masculine

Does not enjoy arts and literature
at all
Does not easily express tender
feelings

Source: Ippoliti, V. J., Women in the Army. Roles and Relation, MPA Thesis, City
University of New York, 1976, pp. 7-8.

APPENDIX D

UNITED STATES MILITARY ACADEMY - ACADEMIC CURRICULUM

Core Requirements (Courses)

Basic Sciences:

(14)

Chemistry
Computer Science
Mathematics
Physics

Applied Science and Engineering:

(6)

Civil Engineering
Electrical Engineering
Nuclear Engineering
Weapon Systems Engineering

Humanities:

(8)

American Studies
Foreign Languages
 Chinese
 French
 German
 Portuguese
 Russian
 Spanish
Literature

National Security and Public Affairs:

(13)

Economics
Geography
History
International Affairs
Military Studies
Political Science

Interdisciplinary Field:

Management

Source: United States Military Academy, Information for
Women Candidates, West Point, April 1976.

APPENDIX E

COMBAT/COMBAT SUPPORT SKILLS*

11B	Infantryman
11C	Infantry Indirect Fire Crewman
11D	Armor Reconnaissance Specialist
11E	Armor Crewman
11Z	Maneuver Combat Arms Sergeant
12B	Combat Engineer
12C	Bridge Specialist
12D	Powered Bridge Specialist
12E	Atomic Demolition Munition Specialist
12F	Combat Engineer Tracked Vehicle Crewman
12Z	Combat Engineer Senior Sergeant
13B	Field Artillery Crewman
13E	Field Artillery Cannon Operations/Fire Direction Assistant
**13W	Field Artillery Target Acquisition Senior Sergeant
**13Y	Cannon/Missile Senior Sergeant
13Z	Field Artillery Cannon Senior Sergeant
15B	Sergeant Missile Crewman
15D	Lance Missile Crewman
15E	Pershing Missile Crewman
15F	Honest John Rocket Crewman
15J	Lance/Honest John Operations/Fire Direction Assistant
**16B	Hercules Missile Crewman
**16C	Hercules Fire Control Crewman
**16D	Hawk Missile Crewman
**16E	Hawk Fire Control Crewman
16F	Light Air Defense Artillery Crewman
16P	Chaparral Crewman
16R	Vulcan Crewman
17K	Ground Surveillance Radar Crewman
54C	Smoke and Flame Specialist
82C	Artillery Surveyor

* Based on existing MOS as of Change 6, AR 611-201.

** Do not appear on current list of closed MOS in AR 611-201.

Source: U. S. Army, Women in the Army Study Group, Women in the Army, (Draft), Washington, D. C., August 1976, Ch. 4.

APPENDIX F

SKILLS FOR TEMPORARY CLOSING (BASED ON MANAGEMENT CONSIDERATIONS*)

<u>MOS</u>	<u>TITLE</u>	<u>REASON</u>
16J	Defense Acquisition Radar Crewman	Rotation Base
21G	Pershing Electronics Material Specialist	Rotation Base
24C	Improved Hawk Firing Section Mechanic	Rotation Base
24E	Improved Hawk Fire Control Mechanic	Rotation Base
24G	Improved Hawk Information Coordination Central Mechanic	Rotation Base
24N	Chaparral System Mechanic	No Entry Level Positions
24P	Defense Acquisition Radar Mechanic	Rotation Base
24U	Hercules Electronics Mechanic	Rotation Base
25J	Operations Central Repairman	Career Progression
31D	Pershing Communications Specialist	Career Progression
45P	Sheridan Turret Mechanic	Rotation Base
45R	Missile Tank Turret Mechanic	Rotation Base

*Based on existing MOS as of Change 6, AR 611-201.

Source: U. S. Army, Women in the Army Study Group, Women in the Army, (Draft), Washington, D. C., August 1976, Ch. 4.

APPENDIX G

ATTRITION RATES FOR FY 1971-1974 ACCESSION GROUPS (AS OF 30 JUNE 1974 AND FY 1974 REENLISTMENT RATES BY SEX)

	Total			Involuntary			Unsuitable		
	Male	Female	Ratio*	Male	Female	Ratio*	Male	Female	Ratio*
1971 Accessions	71.0%	57.4%	1.24	26.9%	35.9%	.75	15.1%	25.0%	.60
1972 Accessions	40.9%	30.7%	1.33	25.3%	25.5%	.99	15.6%	18.3%	.85
1973 Accessions	22.5%	17.2%	1.31	19.4%	14.3%	1.36	11.5%	10.8%	1.06
1974 Accessions	9.2%	4.5%	2.04	8.2%	3.5%	2.34	3.9%	2.0%	1.95

1974 Reenlistments 34.3% 58.4% .59

*Male rate divided by Female rate

Source: Defense Manpower Commission Staff Studies and Supporting Papers, Volume III,
Military Recruitment and Accessions and the Future of the All Volunteer Force,
U. S. Government Printing Office, Washington, D. C., May 1976, p. K4-3.

APPENDIX H.

Utilization of Women in the Military of Industrialized Countries (Gross National Product per Capita and Wilensky Index of Egalitarianism)

Country	GNP per Capita: 1972	Egalitarian Rating	Women in Military		
			Number	Percent	Year
United States	\$5,551	2	90,296	4.2	1975
Sweden	5,157	1	0	0.0	1975
Canada	4,805	2	3,550	4.5	1976
Germany (Fed. Republic)	4,218	3	0	0.0	1975
Denmark	4,211	2	381	1.0	1975
Norway	3,889	1	0	0.0	1975
France	3,823	2	9,379	1.6	1975
Belgium	3,664	2	0	0.0	1975
The Netherlands	3,437	2	1,200	1.1	1974
Finland	2,869	3	0	0.0	1975
Japan	2,823	4	800	.3	1974
Austria	2,758	3	0	0.0	1975
Australia	2,700	3	3,452	4.9	1975

APPENDIX H (continued)

Country	GNP per Capita: 1972	Egalitarian Rating ^c	Women in Military		Year
			Number	Percent	
United Kingdom	2,472	2	15,300	4.1	1973
Italy	2,164	4	0	0.0	1975
U.S.S.R.	2,000	1	0	0.0	1975
German Democratic Republic	1,889 ^b	3	0	0.0	1975
Hungary	1,388 ^b	4	0	0.0	1975
Spain	1,340	4	0	0.0	1975
Poland	1,212 ^b	1	0	0.0	1975
Greece	1,067 ^b	4	0	0.0	1975
Yugoslavia	927 ^b	1	2,300	1.0	1974

^a Israel not listed in table because it is a special case since it is on a "permanent" war basis.

^b 1970 GNP.

^c Rating from Wilensky, H.L., "Women's Work: Economic Growth Ideology, Structure," Industrial Relations, 7(3), May 1968.

APPENDIX H (continued)

- Sources: Goldman, N., The Utilization of Women in the Armed Forces of Industrialized Nations, Revised version of a paper presented at the 8th World Congress of Sociology, Toronto, August, 1974.
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